

**INSIDE DOPE**

by GEORGE F. TAUBENECK

Story of the Week  
Virtuous Quotes  
Confusion of the Week  
Attention: All Subscribers  
Ad Kid Stories  
Wastebaskets of the Week  
Quotes of the Week  
Competitor's Mother-In-Law's  
Beef  
Is Cooperative Advertising  
Falling Apart?  
Ad Salesman Stories  
More Salesman Stories  
Wisdom for Salesmen  
Lure of Nacilupers

**Story of the Week**

Charles Erwin Wilson, president of General Motors, is the authority for this story. Friend of his, the general manager of a large oil concern, decided to take a long inspection tour of gas stations which merchandised his products.

Travelling incognito he ordered a few gallons of gas, or asked for an oil check, in station after station. Surreptitiously he made notes on courtesy of attendants, condition of washrooms, and whether or not the serviceman suggested additional products.

First two weeks his findings were disappointing, and he wrote blistering reports to regional managers. Then, almost miraculously, every serviceman he visited was a model of deportment.

The executive was overjoyed until, by chance, he happened to look under the hood of his Buick. Therein somebody had painted:

ON YOUR TOES. THIS BIRD IS PRESIDENT OF THE COMPANY.

**Pertinent Quotes**

"This is the first time in American history that we have gone into a war afraid that we might make our enemy mad."—EARLE COCKE, JR., national commander of the American Legion.

"Inflation is theft of the savings that worried people put into bonds and insurance policies."—HARLAN MILLER, Des Moines (Iowa) Register.

**Confusion of the Week**

Among the NPA Industry Advisory Committees appointed recently are:

"Phthalic and Maleic Anhydrides."  
"Nailed Wooden Shooks."  
"Eastern Poles and Pilings."

Is there any genius in Washington who can figure out how to control all the multiplex and obscure American businesses?

**Attention: All Subscribers**

"Zeke" Carrithers, experienced and competent Toledo consultant on advertising and promotion problems, is searching for an out-of-print book entitled:

"Twenty Years of Hustling." Likewise, "Inside Dope" would love to re-read this entertainingly candid autobiography of an ingenious salesman. It was published about 40 years ago. In case a subscriber happens to have a copy, or can find one in his grandmother's library, we pay a premium price for it.

Incidentally, "Dope's" eight-year-old son Gregory will appreciate receiving picture postcards from your vacation trips again this year.

Already you lovely people have sent Greg more than 2,000 postcards for his collection. He yearns for more, of course. However, he truly appreciates each one, and studies the collection daily.

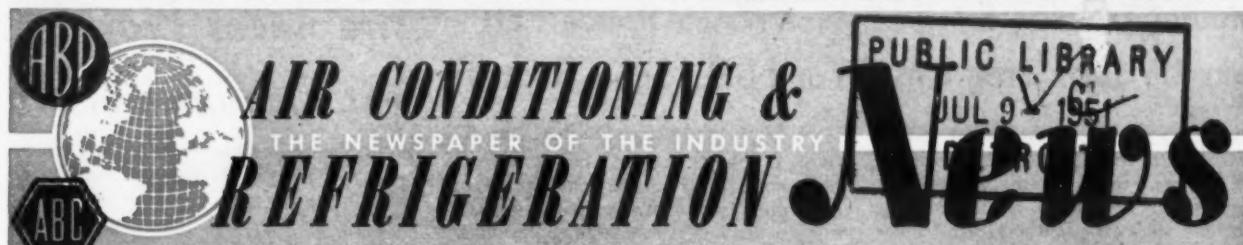
**Ad Kid Stories**

Teacher: "Where is the capital of the United States?"

Précocious Pupil: "In foreign loans and domestic boondoggles."

(Concluded on Page 6, Column 1)

ISSUED EVERY MONDAY AT 450 W. FORT ST., DETROIT 26, MICHIGAN. ESTABLISHED 1926.



Vol. 63, No. 10, Serial No. 1164

July 9, 1951

Subscription Price, \$5 Per Year

Reentered as second-class matter October 3, 1936 at the post office at Detroit, Michigan, under the Act of March 3, 1879.  
Trade Mark Registered U. S. Patent Office. Copyright 1951, by Business News Publishing Co.

**FRB Fails To Ease Credit Controls; Congress May Act**

DETROIT—Despite a lot of rumors and even some "positive" predictions in the public press that the Federal Reserve Board was planning to relax consumer credit controls on its own, no such action has been taken—and the word from those close to the board is that it won't be.

In fact, the board didn't even meet on Monday, July 2, the day that it was supposed to be taking the "relaxing" action.

But there are many who believe that the overhauled Defense Production Act, when Congress gets through with it, may call for some relaxing. The Senate bill called for some easing of controls on automobile terms, while the House committee bill fixed maximum restrictions on household appliance financing at a 15% down-payment and 18 months to pay. This means that if approved, the board couldn't rule for more than a 15% down payment, or less than 18 months to pay.

While the hearings held up to this point haven't revealed much sentiment for these maximum terms set by the House, there are those who think that there is enough public sentiment for the easing of terms that the House bill provisions may stick in the final measure.

**J. W. Hart Resigns as President of McCray**

KENDALLVILLE, Ind.—Mrs. L. O. McCray, chairman of the board of directors, McCray Refrigerator Co., has announced that J. W. Hart has resigned as president and director, effective Aug. 1, 1951.

Hart stated that his successor would be announced shortly, and and after a trip through the East during the month of August he will work with the new president on a consulting basis until Jan. 1, 1952.

Employed March 7, 1907, Hart served at first as secretary to the late (Concluded on Back Page, Column 4)

**Detroit Lubricator Announces Changes In Sales Department**

DETROIT—A number of changes in sales department assignments have been made by Detroit Lubricator Co., manufacturer of refrigerant flow control valves and other refrigeration controls, it is reported by E. J. Doucet, vice president and general manager of sales.

K. B. Thorndike, vice president, will assume direction of the eastern regional office with headquarters in New York City. He was formerly (Concluded on Page 21, Column 1)

**'Misleading' Advertising Snags N.Y. Appliance Dealer**

NEW YORK CITY—The city of New York has taken its first action against an electrical appliance retailer for using "misleading" advertising.

Penalties of \$100 each for three instances in which misleading advertising was found to have been employed, were imposed on the Dynamic chain of appliance stores.

The action was taken under Sec. (Concluded on Page 21, Column 3)

**'50 Commercial Sales Fell Just Shy of '47 Peak**

WASHINGTON, D. C.—Shipments of components and accessories for air conditioning and commercial refrigeration equipment in 1950, as reported to the Bureau of the Census, were valued at \$196 million (manufacturers' prices), up 48% over the 1949 total of sales reported to the bureau.

The 1950 figure, in fact, was just

Complete tabulated data on 1950 shipments of air conditioning and commercial refrigeration components and accessories as reported to the Bureau of the Census is published on pages 22 and 23 of this issue.

barely short of the 1947 peak shipments valued at \$204 million.

Increases were shown by all four major classes of components and accessories for air conditioning and commercial refrigeration equipment included in the report. Condensing (Concluded on Back Page, Column 1)

**Servel Electric Model In Volume Production**

NEW YORK CITY—Servel, Inc. has announced that it is now in volume production on its new line of electric household refrigerators, introduced earlier this year.

The new electric models employ the same absorption principle as the Servel gas refrigerator, except that an electric heating element is used in place of a gas heating element.

Initial promotion in the New York metropolitan area market broke with a full page advertisement in the (Concluded on Page 21, Column 2)

**Furniture Mart Survey To Determine Future Meetings**

CHICAGO—The National Association of Summer Furniture Manufacturers has announced that it will hold its fall market here the week of Oct. 22, but the decision as to whether or not a general furniture market will be held during October will depend on a survey now being made by the American Furniture Mart.

At the mid-year home furnishings markets there was some agitation for four markets a year at Chicago, but the market dates committee came out with a report favoring the usual two markets only at Chicago. However, it is said that the committee and most manufacturers will go along with whatever the survey indicates.

**Westinghouse Pay Boost Offer Approved by WSB**

PITTSBURGH—Westinghouse Corp.'s offer of a pay increase of 9 cents an hour to the majority of its employees has been approved by the Wage Stabilization Board.

There will be no increase in the price of Westinghouse products, as a result of the wage and salary increase, said Gwilym A. Price, president. He estimated it would add \$20 million a year to the company's cost of doing business.

Congressional action forestalling price rollbacks contributed to Westinghouse's decision to grant the pay increase, Price said.

(Concluded on Page 21, Column 2)

**Congress Votes This Week on Controls Act**

**For July, Price Ceilings Stay at June 30 Levels; Other Curbs Still In Force**

WASHINGTON, D. C.—As the House of Representatives this week starts voting on a new Defense Production Act, this is where controls stand under the present 31-day extension that carries through July:

Prices—A temporary freeze was slapped on manufactured goods covered by Ceiling Price Regulations 22 and 30 that maintains ceilings—not market prices—where they were on June 30. Ceilings on housewares and television and radio sets covered by CPR 7 are unaffected and remain in force. These ceilings should now be posted in dealers' stores.

Materials—The tighter restrictions decreed by NPA for the third quarter are being applied as scheduled.

Consumer credit—Regulation W remains in full force as it was before July 1. There is no easing of down payments or terms.

Wages—Controls on wages have not been affected by the extension.

On Capitol Hill, Congressmen are attempting to decide whether or not we need controls and if so, what kind.

The Senate has passed a bill which would extend for eight months the wage and price control provisions of the 1950 act with a few moderations.

Changes include a prohibition (Concluded on Page 4, Column 2)

**Kelvinator Raises Prices on Some Ranges, Freezers**

DETROIT—Price increases on some models of Kelvinator electric ranges and home freezers have been announced by C. T. Lawson, vice president in charge of sales. Lawson said the changes were made necessary by increases in manufacturing costs.

New distributor and dealer prices, which have been approved by the Office of Price Stabilization, were mailed June 29 to take effect July 2. As a result of these approved increases, new suggested cash installed prices are as follows:

Model	Sugg. Installed Price	Incl. Excise Tax
ER-1	\$172.25	
ER-14	181.50	
ER-2	207.00	
ER-3	230.75	
ER-7	309.95	
ER-9	342.50	
ER-9D	392.50	

**HOME FREEZERS**

Model	Sugg. Installed Price	Incl. Warranty and Excise Tax
FR-63	\$269.95	
FR-93	399.95	
FR-133	449.95	
FR-203	649.95	

**Sporlan Names Grote, Barry To Head Sales**

ST. LOUIS—Sporlan Valve Co. has announced the promotion of C. C. Grote and J. T. Barry to the positions of sales manager and western sales manager, respectively. Grote, whose headquarters are in Mount Vernon, N. Y. and who has been eastern sales manager for a number of years, will be responsible for the entire sales of the company.

Assisting Grote is J. T. Barry, who makes his headquarters at the main office in St. Louis. Barry formerly was sales engineer in the midwest for a number of years.

Frank Jaeger has been appointed sales engineer for the midwest territory with headquarters in St. Louis. Before joining Sporlan, Jaeger was associated with Servel, Inc. for several years as field service engineer.

**Bill Seeks To Plug Hole In U. S. Fair Trade Act**

WASHINGTON, D. C.—A bill which would set aside the recent Supreme Court decision voiding the non-signer clause of state fair trade laws has been introduced by Rep. Albert Morano (R., Conn.).

In New York City, meanwhile, it was announced that a proposed amendment to the Miller-Tydings Act has been drafted by a group of lawyers representing manufacturers of fair-traded merchandise.

The draft is intended to provide the "one clear provision" which the high court ruled was lacking in the act in order to cover non-signers of fair trade agreements.

Rep. Morano's bill, now pending before the House Judiciary Committee, would add the following language to the Miller-Tydings Act:

"Provided, that nothing herein contained shall render illegal contracts or agreements (including contracts or agreements effective with respect to persons who are not parties to (Concluded on Back Page, Column 1)

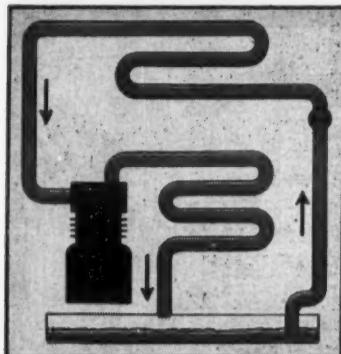
**Free Milk Service Offer Boosts Refrigerator Sales**

BUFFALO—An offer of free milk for the balance of the year was successfully employed by Bestway Stores here as a means of stimulating its refrigerator business.

To every customer buying a refrigerator during the promotion, Bestway offered free milk service until Dec. 31, 1951. The service included six quarts of milk a week, two half pints of cream every week, and one 12-oz. carton of cottage cheese every week—delivered to the customer's home.

Bestway Stores said it made arrangements with a leading local dairy (Concluded on Back Page, Column 1)

**TRAVELS TO EVERY  
DROP OF MOISTURE**



Thawzone circulates with the refrigerant to reach ALL the moisture. Gets to any moisture traps in expansion valve, receiver, etc.

By a patented method Thawzone actually destroys moisture so it can't come back. For any "Freon" or methyl chloride units. Phone your wholesaler now.

## THAWZONE®

Genuine Joe says:  
"Stock WAGNER  
STANDARD ROTORS"



A stock of genuine Wagner interchangeable replacement armatures makes rotor replacement a simple 1-2-3 job... and the exclusive "tell-all" label shows the interchangeability of rotors within a given horsepower on Wagner motors.

**Wagner Electric Corporation**  
6471 PLYMOUTH AVENUE, SAINT LOUIS 14, MO., U.S.A.

## Hotpoint Training Kit Perks Up Sales Programs

CHICAGO—A new low-cost "self-trainer" kit for appliance salesmen, part of an over-all merchandising program to revitalize dealer selling practices, is being introduced to retailers by Hotpoint, Inc.

The sales training package consists of five long-playing records, and five illustrated booklets covering all selling points of Hotpoint appliances for complete kitchens and home laundries. The narrator refers to pictures in the manuals as he explains the features of each appliance.

W. E. Macke, merchandising manager, said that the audio-visual method of training requires no props or staging. The dealer can activate sales training programs during or after working hours, in the store or at home. The package sells for \$5.95, and provides salesmen with the basic product knowledge on which all promotions are based.

### Schnacke, Inc. Moves

EVANSVILLE, Ind.—Schnacke, Inc. has moved its offices, shipping, and receiving department, and final assembly operations from 1016 E. Columbia St. to 1101 N. Governor, Evansville 7, the company announced.

The move was necessary, the company said, "due to continually increasing business and the addition of defense contracts."

All business will be transacted at the new address, including shipping and receiving of parts and units. Manufacturing will continue at the old location.

## Not Much Space Left For NFFLI Show Sept. 16

ELIZABETHTOWN, Pa.—Forty-two display booths have already been sold for the 1951 National Frozen Food Locker convention, according to Robert L. Madeira, executive secretary of the National Frozen Food Locker Institute. Seventeen exhibit spaces remain available.

The Frozen Food Locker convention this year will be held at the Netherland-Plaza hotel in Cincinnati Sept. 16-19. It is expected to be the largest convention in the history of the frozen food locker industry, Madeira declared.

The convention committee for 1951, which is planning the National Frozen Food Locker convention, consists of Jack Smith, Commercial Product Application manager, Frigidaire; Art Sprague, vice president of the National Frozen Food Locker Institute, Jackson Center, Ohio; Al Todoroff, editor, Locker Management; Jack Hoppe, publisher, Locker Management; Madeira, executive secretary National Frozen Food Locker Institute, with headquarters at Elizabethtown, Pa.

### Miami Apartment Hotel Will Be Air Conditioned

MIAMI, Fla.—A 56-apartment unit hotel costing \$600,000 exclusive of the land is under construction on State Highway A1A one half mile north of Sunny Isles road. According to the Forel Realty Corp., builders, the entire building will be air conditioned.

## Fireplaces Provide Space for Window Air Conditioners In South Texas Homes



WINDOW CONDITIONER replaces gas log in false fireplace. Unit cools living room, and dining room, about 400 sq. ft.



FROM THE EXTERIOR, unit extends through brick wall. It was painted white to make it less conspicuous.



THE INTERIOR of this installation became a bookcase. Fireplace was removed completely and carpenter built shelves around the unit for decorative effect. The air conditioner cools a large living room and adjoining music room.

so it was taken out completely and the unit installed through the wall.

"After the unit was installed, a cabinet maker made bookshelves and installed them in the place formerly occupied by the fireplace.

"The portion of the unit extending outside was painted white to make it less conspicuous. The unit cools a large living room and a small music room attached to the living room."

### Nor-Main In New Location

BUFFALO—The Nor-Main Heating & Maintenance Corp. has moved to a new location at 327 Washington St. here.

The firm has been in the air conditioning and heating business for several years. Joseph Manzella is the manager. The company specializes in the installation and servicing of air conditioning units, gas and oil furnaces, and sheet metal and ductwork.

## Don't turn Your Back on Profits...

THEY'RE YOURS  
WHEN YOU SELL

**feeders**

**WATER COOLERS**



### advanced design

Stainless steel tops, foot pedal operation, automatic stream control, hermetically sealed unit, lubricated for life, 5 year protection plan.

Write Dept. AC-13 and we'll rush full information

### complete line

Bottle, bubbler, air cooled, water cooled and explosion-proof models with capacity from 3 to 10 gph answers a wide range of requirements with minimum inventory.

**FEDDERS-QUIGAN CORPORATION**  
57 TONAWANDA ST. BUFFALO 7, N. Y.

## Circus Sale Offers Tickets With Purchase

### New and Used Appliances Included In Promotion

ERIE, Pa.—The Winter Co., appliance dealer, tied in with the local appearance of Ringling Bros. Circus by holding a "Circus Sale" which featured free tickets to the big show.

With the purchase of any appliance tagged "Circus Special," the store awarded two free reserved seat tickets to either performance of the circus.

All types of appliances were included in the "Circus Special" collection, including new and used appliances, floor models, and demonstrators.

The promotion was launched with a large newspaper advertisement which broke six days before the arrival of the circus, giving the store nearly a week in which to promote its "Circus Specials."

The advertisement was built around a circus theme, with eye-catching artwork.

The advertisement carried a checklist of the types of appliances offered in the event, giving prospects a chance to check over "Circus Special" offers against their needs.



HERE'S YOUR OPPORTUNITY TO GET 2 CHOICE RESERVED

**FREE TICKETS**

TO EITHER PERFORMANCE OF RINGLING BROS. CIRCUS

TUESDAY, JUNE 26TH

Look for the Merchandise Tagged

CIRCUS SPECIAL

Your Purchase Entitles You To

2 Choices Reserved Seats FREE!

Great Unheard of Buys in Every Department of Our Stores . . .  
NEW . . . USED . . . FLOOR MODELS . . . DEMONSTRATORS . . .  
ALL REDUCED TO MOVE OUT FAST!!!

Check This List . . . Buy Now and Get Your Free Circus  
Ticket to Erie's Largest Trade-In Allowance!  
Safely and Easy Returns



ABOVE: TV Teen Club's Paul Whiteman and Nancy Lewis, Mistress of Ceremonies.

## Out to Win New Customers for Kelvinator Dealers!

NOW THE TELEVISION SHOW that has won its way into the hearts of America is at work winning friends and business for Kelvinator Dealers with a big new family audience.

IT'S THE PAUL WHITEMAN TV TEEN CLUB PROGRAM . . . a sparkling talent hunt developed as an inspirational opportunity for young people . . . and now a full hour, established hit, telecast from coast to coast over 50 ABC-TV Network stations. In sponsoring this great show, Nash-Kelvinator takes another big forward step in utilizing the unique advertising force of television in behalf of its Dealers.

RIGHT FROM THE FIRST TELECAST TWO YEARS AGO, THE TV TEEN CLUB YOUNGSTERS HAVE BEEN AN INSPIRING SUCCESS! They have won a high audience rating among TV favorites!

A "family type" show from start to finish . . . it is fast-paced . . . bubbling over with fresh, youthful talent . . . with the added excitement of a continuing contest and *big prizes!* It appeals to everyone . . . to the adults who are Kelvinator's best customers now . . . and to the teen-agers who influence sales today and who will be the customers of tomorrow!

Good citizenship and good business go hand in hand for Kelvinator Dealers. And so Kelvinator supports its Dealers with a television program that appeals to the entire family circle . . . with advertising that *sells!* In progressive, forceful dealer support like this, there's yet another big reason why the Kelvinator franchise is the most valuable in the appliance industry.

*GET MORE . . .*  
*Get Kelvinator*

TUNE IN—ENJOY IT! THE PAUL WHITEMAN TV TEEN CLUB ON ABC-TV NETWORK presented by Kelvinator and Nash dealers. See your local paper for day, time and station.

THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY  
ELECTRIC REFRIGERATORS...RANGES...FREEZERS...WATER HEATERS...AIR DRIERS

KELVINATOR • DIVISION OF NASH-KELVINATOR CORPORATION • DETROIT 32, MICHIGAN

# CHILL CHEST

*The Greatest  
VALUE in  
FOOD FREEZERS*

THE FAMILY'S  
PREFERENCE EVERYWHERE



Revco, INC. • DEERFIELD, MICH.

MORE INFORMATION?

Use Handy Coupon  
on "What's New" Page  
of this issue  
Use Key No. for fastest service.

## Congress To Vote on Controls--

(Concluded from Page 1, Column 5) against price rollbacks beyond the level of Jan. 24 to Feb. 24 and a prohibition against requiring more than one third down and less than 18 months to pay on automobiles. Instalment credit for appliances was not altered.

Last week there was some talk by a few Congressmen that the end of the hostilities in Korea removed any necessity for price and wage controls and that they would vote to remove them entirely. They indicated that they have not received much pressure from their constituents for control extension.

Price Administrator Michael V. DiSalle left no doubt that he did not like what Congress was doing to his control powers. He indicated that the ban on price rollbacks was undermining his whole program.

He "hoped" that Congress would "provide us with the means of undertaking manufacturer pricing in a way we believe to be entirely in the interest of the public and business."

To cover the interim period, he issued General Overriding Regulation 13 which gives these instructions to manufacturers subject to CPR 22 and 30:

"The Director of Price Stabilization is of the opinion that pending further clarification and study manufacturers' ceiling prices should be kept at their existing level.

"The effect of this general overriding regulation is to eliminate all requirements for rollbacks after June 30, 1951 and to freeze price ceiling provisions in effect on June 30, 1951.

"Sellers of commodities subject to CPR 22 and the companion regulations who have put those price ceiling regulations into effect on or before June 30, 1951 as to any commodity or service, continue to price under those regulations for the commodity or service.

"Otherwise the seller continues to apply the General Ceiling Price Regulation. . . .

"Sellers who have not yet filed their reports under the regulations in question need not do so until further action by the OPS. This pro-

tection does not countermand reports already on file.

"But, whether such reports containing proposed increases in ceiling prices became effective on June 30, 1951 may depend on the waiting provisions of the regulation.

"Under CPR 22, reports of ceiling price increases received by OPS after June 14, 1951 will not have the effect of establishing a ceiling price in effect on June 30, 1951, since the 15-day period after date of receipt will not have expired on or before June 30, 1951.

"Ceiling prices for commodities covered by such filings will, therefore, remain at the GCPR level."

## 'Misleading' Ads--

(Concluded from Page 1, Column 2) tion 241 of Article 40 of the Penal Law, which says that any company that circulates an advertisement that is "untrue, deceptive, or misleading" is guilty of a misdemeanor. The department does not have the authority to institute court action, but if the judgment of one of its hearing officers is not complied with the matter is referred to the Corporation Counsel.

Commissioner of Markets Anthony Masciarelli said that markets inspectors, acting on complaints from other retailers, had visited several of the chain's stores one morning just as they were opening for business. The inspectors had instructions to buy some of the advertised television bargains.

"The inspectors found that the sets advertised were not available," Masciarelli said.

Officers of the chain were called in for a hearing and requested time to produce evidence that the sets in question had been sold at the advertised prices, but failed to do so, and the penalty was then imposed.

"The department seeks the cooperation of all members of the industry and warns that all violators will be subject to criminal prosecution under Section 421 of the Penal Law if they persist in indulging in illegal practices," Masciarelli said.



ALICE MOLNAR points out what the Fedders air conditioning dealer needs to make a successful home demonstration. She is holding a recording of a musical radio commercial and points to the home demonstration kit with which a unit can be temporarily installed in 10 minutes or less. For each demonstration, successful or not, the dealer gets \$2.

## Fedders Dealers Offered \$2 for Each Air Conditioner Home Demonstration

BUFFALO—A home demonstration award plan that will pay Fedders air conditioning dealers \$2 for every home demonstration made on a Fedders window unit has been announced by Fedders-Quigan Corp.

Along with the plan the company is also offering a home demonstration kit that enables the dealer to make a temporary installation in 10 minutes.

In addition, it has come out with an electrical transcription of a musical commercial radio spot that not only sells Fedders but also permits the dealer to insert material to attract trade to his own store.

Under the demonstration award plan, the dealer uses the home demonstration method to sell a Fedders air conditioner. When he does, he fills out a certificate that gives the facts of the demonstration. It tells whether or not the unit was sold and if not, why not.

For each certificate turned in to his distributor before Sept. 30 on demonstrations made before Aug. 31, he will receive \$2. Half of this amount is contributed by the manufacturer and half by the distributor.

The home demonstration kit con-

sists of the necessary clamps to hold a window air conditioning unit to the window ledge. This is being offered to distributors at \$2.15 net, f.o.b. Buffalo for sale to dealers at cost or given gratis.

The radio announcements come in a series of eight—four one-minute spots and four station breaks. They were prepared by Nelson Ideas, Inc. which specializes in musical announcements.

The announcements carry the vocal story through part of their length. After that, background music is played against which the local announcer reads copy which ties in the local dealer, his name and location, along with the free home trial offer. He also stresses the dealer's store as a good place to do business.

The recording can be played on any standard phonograph operating at 78 r.p.m.

According to R. E. Cassat, advertising and sales promotion manager for Fedders, the radio commercial can be used at low local rates. It will be handled on a cooperative basis with dealers paying 50% of the cost, distributors 25%, and the manufacturer 25%.

## LA CROSSE SUPREME COOLER

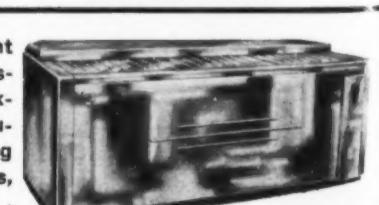


Economy and efficiency team up to make this low price—high quality cooler more and more popular in schools, restaurants and hotels where refrigerated storage for milk and other dairy products is needed. Attractively finished in blue baked finish with stainless steel lids . . . 3" Fiberglas insulation . . . Model 461 illustrated.

## LA CROSSE

## BLUEBIRD COOLER

Especially designed for restaurant bars, food counters and other industry wide uses, the Bluebird is extremely popular in schools, restaurants, hotels and factories for storing and dispensing milk, dairy products, soft drinks, etc. . . . only 33" high . . . features easy operating push back doors . . . available in 4'-6'-8' models . . . either electric complete or remote installation . . . in Blue Hammerloid or Stainless Steel finish . . . in the same high standard of quality you've learned to expect from La Crosse.



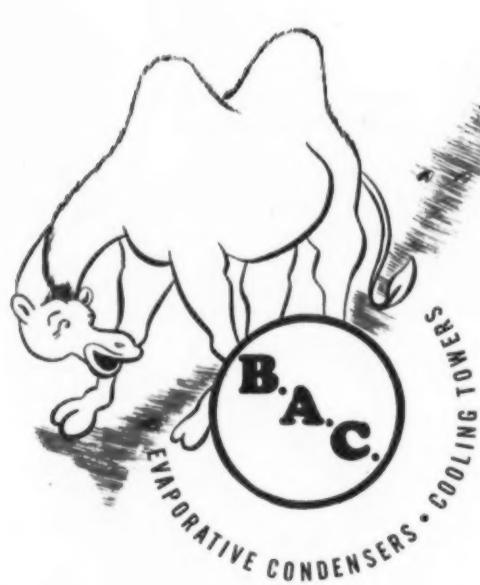
## LA CROSSE COOLER CO.

2801 LOSEY BOULEVARD SOUTH  
LA CROSSE, WISCONSIN

EXPORT REPRESENTATIVES:  
Melvin Pine & Co., 80 Broad St., New York, N. Y.  
Cable Address: Eximport

BALTIMORE AIRCOIL CO., INC.  
2519 PENNSYLVANIA AVENUE • BALTIMORE 17, MD.

Specializing in Water-Saving Devices Since 1938



Write for complete information

# VIRGINIA SMELTING COMPANY

**Manufacturer of "Virginia" Refrigerants**

**Distributor of "Freon" Refrigerants and the Presstite Line**

## NOW BRINGS YOU THE FAMOUS SUNISO REFRIGERATION OILS!



...In refinery-filled  
and refinery-sealed  
containers

"Virginia" is proud of its reputation as a supplier of quality products with the technical know-how to apply them correctly. It therefore takes pride in announcing its appointment as a distributor of the world-famous Suniso Refrigeration Oils. We are sure that this pooling of facilities by two of the country's most reputable firms will work to the advantage of refrigeration and air-conditioning supply and service organizations.

"Virginia" will distribute Suniso Refrigeration Oils only in containers filled and sealed at the Sun Oil Company refineries. Each one will bear the registered Suniso trade-mark. This means that the trade can be sure of receiving the genuine product with all of its superior characteristics unimpaired.

The outstanding characteristics of Suniso Oils are long life-stability, non-waxing, high dielectric strength, low pour point and precisely maintained viscosity.

These "Job Proved" refrigeration oils have industry-wide approval and are used by a preponderant number of equipment manufacturers. They flow back easily to the crankcase from the cold side of the refrigeration system; they do not deteriorate when mixed with "Freon" or other modern refrigerants; practically wax- and moisture-free, they do not clog or freeze in capillary tubes and expansion valves.

**ASK YOUR WHOLESALER  
OR WRITE**

**VIRGINIA SMELTING COMPANY  
WEST NORFOLK, VIRGINIA**

**VIRGINIA**  
*Refrigerants*

PHILADELPHIA  
NEW YORK  
BOSTON  
CHICAGO  
DETROIT  
ATLANTA

## INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

### Wastebaskets of the Week

Press releases received last week—the first sentence of which we never got beyond:

"A simple, practical technique now makes possible the application of the mass spectrometer to the quantitative analysis of solids."

"The ..... Company has found the ..... gauss meter to be the only answer to its problem of conveniently and quickly determining the strength of horseshoe magnets."

"Dehairing hogs becomes a completely mechanical operation with the invention of the ..... electric hog scraper."

"A new approach to the problem of the synthesis of mechanisms to produce desired motions is presented in "Analysis of the Four Bar Linkage." . . . . .

"The National Archives is pleased to announce that the *Federal Register* for the years 1936 through 1950 has been reproduced on 35 mm. film and that copies of this microfilm publication may now be obtained."

### Quotes of the Week

"The love of reading enables anyone to exchange the wearisome hours of life which come to everyone, for hours of delight."—MONTESQUIEU.

"Of all the enemies to public liberty, WAR is the most to be dreaded, because it comprises and develops the germ of every other. War is the parent of armies; from these proceed debts and taxes; and armies and debts and taxes are known instruments for bringing the many under the domination of the few. In war, too, the discretionary power of the Administration is extended; its influence in dealing out offices, honors, and emoluments is multiplied; and all the means of seducing minds are added to those of subduing the force of the people . . . Inequality of fortunes, and the opportunities of fraud, grow out of a state of war, and degeneracy of manners and of morals. No nation preserves its freedom in the midst of continual warfare . . . .

"The Constitution expressly and exclusively vests in the Legislature the power of declaring a state of war . . . the power of raising armies . . . the power of creating offices . . . A delegation of such powers (to the President) would have struck, not only at the fabric of our Constitution, but at the foundation of all well organized and well checked governments.

"The separation of the power of declaring war from that of conducting it is wisely contrived to exclude the danger of its being declared for the sake of its being concluded.

"The separation of the power of raising armies from the power of commanding them is intended to prevent the raising of armies for the sake of commanding them.

"The separation of the power of creating offices from that of filling them is an essential guard against the temptation to create offices for the sake of gratifying favourites or

multiplying dependents." — JAMES MADISON: "*Political Observations*" (1795).

### Competitor's Mother-In-Law's Beef

"Chalf" Right has out-huckstered the legendary salesman who sold a refrigerator to an Eskimo.

Mr. Right, who pushes International Harvester Refrigerators for the La Follette Sales Co. of La Follette, Tenn., sold a home freezer to a competitor's mother-in-law.

Moreover, he negotiated this remarkable transaction with barnyard currency.

Mrs. Lula Lawson of Speedwell, Tenn., owned a cow and yearned for a big freezer. Salesman "Chalf" Right took the cow as down payment for the freezer. Later, he sold cuts of beef for much more than the trade-in allowance plus his commission—and had hamburger left over.

Mrs. Lawson says she is happy.

Mr. Right says he is happy.

Presumably the cow was contented until the transaction was consummated. However, she wasn't interviewed.

### Is Cooperative Advertising Falling Apart?

Via the grapevine we hear that several manufacturers in our industry are worried about the seemingly negative results of cooperative newspaper advertising. Large sums of money are allotted by manufacturers for this purpose; but in recent years a considerable portion of these appropriations have languished unused.

Some manufacturers we hear, now

believe that they cannot depend on substantial numbers of dealers to carry the advertising ball in their localities. Unless and until more dealers present evidence that they'll pay their own share of adequate cooperative advertising deals, manufacturers may swing back to placing national advertising themselves, and assuming full responsibility for its placement.

Have dealers done a poor job on cooperative advertising? Many manufacturers think so. The entire system of cooperative advertising allowances may be in danger.

End of sermon.

### Add Salesman Stories

Sitting and sipping in a tavern, three salesmen spied a solitary woman.

"I hate to see a girl drink alone," observed the liquor salesman.

A wholesale grocery salesman added, "And I don't like to see a woman eat alone."

The Third Man, who represented a mattress firm, remained silent.

At noontime Salesman Sam spied prospect Jones in a restaurant.

"Hello, Mr. Jones. I've been trying to catch you in your office for at least two weeks."

The prospect brushed him aside on his way to a reserved table.

"Make a date with my secretary," he dismissed the salesman, curtly.

"I have. But I'd like to make a date with you, too, sir."

### More Salesman Stories

Dogs comprise an occupational hazard for door-to-door specialty salesmen. Whether or not one is a dog-lover, it must be admitted that the following incident could have happened anywhere.

Mrs. Housewife heard a frightful commotion outside, and peeked through an open window. The family mutt was chasing a Fuller Brush salesman around the huge oak tree in her front yard.

"He won't bite," she sang out. "All he does is bark."

"Yeah?" panted the salesman. "He just barked the seat off my pants."

Ordered by his doctor to take life easier, and to stay outdoors as much as possible, a pale banker bought a filling station.

First morning on this new job he served a motorist whom he recognized as a neighbor. The latter demanded 15 gallons of gasoline on credit.

"Where are you going?" the former Vice-President in Charge of Small Loans queried.

"To Chicago."

"Hmmm," speculated the ex-banker, still gripping by force of habit. "Better hold that down to 10 gallons."

### Wisdom for Salesmen

"Many salesmen who have nothing to offer a prospect except friendship outsell too-serious salesmen who have everything but friendship."—CHARLES B. ROTH.

"Don't sell me clothes. Sell me neat appearance, style, attractiveness."

"Don't sell me shoes. Sell me foot comfort, and the pleasure of walking in the open air."

"Don't sell me furniture. Sell me a home that has comfort, cleanliness, contentment."

"Don't sell me things. Sell me ideals, feelings, self-respect, finer home life, and the hope of happiness."—ANON.

### Lotz of Nacilbupers

Humor is unexpected in a financial wizard; but Rudy Lotz, comptroller of the Virginia Smelting Co., has lots of it. Or somebody in his family does.

From his farm home near Portsmouth, Va. (RFD 1, Box 190) is issued an hilarious semi-monthly entitled *The Nacilbuper*. This periodical purports to be the "Official Organ of the Backward Republican" (Nacilbuper is "Republican" spelled backward).

It should be noted that Mr. Lotz resides in the Solid South.

Herewith we present some crackling excerpts from a recent issue:

"It has been suggested to the editor that all Republicans are backward. While we admit there is considerable merit in this, we believe it may be regional opinion only. And we hasten to add—that doesn't make them Nacilbupers. It just keeps some of them unemployed politically."

"For the careful and suspicious, we wish to assure them that this is positively not a communist front organization, nor a fascist organization. Most people feel we are rather disorganized. To us that's a compliment."

"Alk of Mumph-Mumph announced today a device to eliminate both TV and radio commercials. Fundamentally it consists of an old window shade, which can be drawn to obstruct the view, cunningly connected with a simple tilting table which slides the entire set out of the window. If this doesn't work, he suggests placing the set in the children's bedroom, preferably on a high table. Having several children hastens the operation. We know."

"Seems like we're still arguing about MacArthur out this way. Most everyone in Washington seems to want to get into the act, and it sure adds up to a lot o' testimony. Don't seem quite fair to have one feller after t'other get up and lambast Mac. Specially when all of em are in the same boat and got to stick together. We'd like to see em listen to some fellers who aren't in that boat and have really spent some time in Asia. Like Representative Judd of Minnesota in pertickler."

"We shore couldn't make no sense out of General Collins. Don't think he was really speakin his own mind. Jest sendin up a trial balloon fer somebody else with his statement about quittin fightin at the 38th parallel to see the reaction'll be. Shore makes our aim for a United Korea sound like jest a lot o' wind. Course et makes sense anytime to stop killin folks—unless it means killin lots more later on."

"I have a ram who doesn't know why he is out in the pasture. What do you suggest?" writes a subscriber.

"Frankly, this is one problem we didn't believe could occur on or off farms. However, ----z reports a similar case. He called his veterinarian who prescribed a shot of some of these new hormones. Only result was that the ram wanted his head scratched harder. Another call resulted in a decision to change the brand and try again. After the new hormones took root, he reports, 'the dam ram chased my mare from one end of the pasture to the other.' Unfortunately, as far as fully answering your question, we have been unable to discover whether he caught her, nor were we able to learn which brand was used."

"Things are pretty quiet around the manor come evening. A few chimney swifts squeaking, couple of lambs bawling, an occasional car shushes by out on the road. Around the back door three puppies are snapping and snarling in play. Every-so-often there is a screech as they stretch a kitten. One grabs the head, another the tail, and they pull. At intervals the wife hollers at them to take it easy, altho there is no sign of our running out of cats. After being stretched, a cat just seems to stagger for a short spell, that's all. We don't know whether it makes them taller or longer, or older."

"We suppose you have looked at the crazy-quilt pattern of taxes about to be passed by the House. If there is a buck anyplace that can't holler too loud, looks like they've nailed it. No one believes Nacilbupers have a sound tax program, but we have. Yell like hell is one sound approach. Another is to develop some basic principles about taxation. Here are a few of ours. First, taxes are damned nuisances and hard to pay as well. Second, they should be equitable (plenty of room here). Third, people who benefit directly ought to pay the bill. Fourth, abolish taxes."

"We like the last principle best. We advocate abolishing a lot of taxes. For example, eliminate g sales taxes. How? by changing the name to Road Use Fees. Cre'y? Not at all. It has already been done with your water bill. No one refers to that as water tax anymore. We think that's because it is too fair to be a tax. Fact is, down this way they add a tax to the water bill."

**That's why the trend is to the TECUMSEH**

**Modern design gives today's refrigerators a greater food storage capacity in relation to overall cabinet size than was deemed possible just a few short years ago. Unit compartments have been reduced in size or eliminated entirely. Food compartments have been extended, in many cases substantially to floor level. Thus storage space has been increased by two or more cubic feet with no increase in exterior dimensions, and with but little added load on the compressor.**

**This remarkable achievement is made possible by the Tecumseh Compact. Due to its small size, the Compact may be installed in a smaller-than-usual unit compartment, mounted on the back of the cabinet, or placed in a "dimple" in the cabinet liner. When used with the new flue-type static condenser,**

**TECUMSEH PRODUCTS Company**

**TECUMSEH, MICH.**

**TECUMSEH PRODUCTS COMPANY, TECUMSEH, MICH.**

**EXPORT DEPT.: 2111 WOODWARD AVE., DETROIT, MICH.**



**TECUMSEH PRODUCTS**  
**Company**  
TECUMSEH, MICH.  
TECUMSEH PRODUCTS COMPANY, TECUMSEH, MICH.  
EXPORT DEPT.: 2111 WOODWARD AVE., DETROIT, MICH.

World's largest independent producer of compressors and condensing units for the refrigeration industry.

# DISTRIBUTION BROADENED ... QUALITY PROTECTED

for

## SUNISO®

# REFRIGERATION OILS

### Only in Refinery-Filled & Refinery-Sealed Containers

From now on, refrigeration and air-conditioning supply houses and service organizations will be supplied genuine Suniso Refrigeration Oils *only in packages filled and sealed at the Sun Oil Company refineries*. Sun has established this policy in order to make absolutely certain that the trade receives Suniso Refrigeration Oils with all their superior characteristics unimpaired.

### The Suniso Trade-Mark Is Your Protection

The presence of the registered Suniso trade-mark on the container is your assurance that you are getting genuine Suniso Refrigeration Oil. The Suniso name on the can or drum is your guarantee of long life-stability, non-waxing characteristics, high dielectric strength, low pour point, and precisely maintained viscosity.

### New Distributor for Refrigeration Supply Houses

VIRGINIA SMELTING COMPANY has been added to the sources from which wholesalers and supply houses can get genuine Suniso Refrigeration Oils. This means many new distribution points from which Suniso can be obtained in the United States, Canada and throughout the world.

### Special Significance to Manufacturers

Leading manufacturers of refrigeration and air-conditioning equipment charge their new compressors with Suniso. The addition of VIRGINIA SMELTING COMPANY as a Suniso distributor assures these manufacturers of adequate supplies of Suniso in the hands of service organizations everywhere. This means manufacturers' equipment can be properly serviced with the specified grades of Suniso. Equipment failures caused by inadequate oils can be avoided.

### WRITE NOW FOR PARTICULARS

If you're interested in more information about Suniso Refrigeration Oils, write to Dept. RN-7, Sun Oil Company, Philadelphia 3, Pa.

**SUNISO REFRIGERATION OILS**  
"OB PROVED" THROUGHOUT THE INDUSTRY



**CLEANABLE  
WATER-COOLED  
CONDENSERS**

More Efficient Double-Tube  
Counter-flow Design

1/2 to  
25-Ton  
Capacity

HM

Acceptance in the field is rapidly changing to "Demand" for these efficient, more economical Cleanable water-cooled Condensers. Owners and service men prefer the "new unit" efficiency that can always be maintained by a simple cleaning process. Brass headers, machined and brazed.

Write for Catalog and Prices  
WHOLESAVERS IN PRINCIPAL CITIES  
**Halstead & Mitchell**  
BESSEMER BLDG. PITTSBURGH 22, PA.

**JUST ASK US!**

Turn to "What's New" page for useful information.

**REFRIGERATION OUTPOST****Commercial Sales, Service Firm Located on 160-Acre Farm  
In North Woods Finds Prospects at Every Crossroads**

By C. Dale Mericle

COPEMISH, Mich.—If you've never heard of this crossroads town nestled in the woods of northern Michigan, you needn't be embarrassed. Few people have.

Yet it belongs on the refrigeration map, thanks to Bernie Griner, who maintains a warehouse and well equipped shop on his 160-acre farm so he can sell and service Frigidaire and Sherer-Gillett commercial equipment.

And he sells a lot of it, averaging about one case a week, to spots that the city-bred salesman would probably overlook. It's truly surprising to walk into a small grocery store at the "four corners" in these parts and find a beautiful shiny new open self-

serve case stocked with produce, dairy products, or cured meats.

Or maybe there'll be two or three cases. After several stops at stores like these you'll finally realize it was Griner, not Kilroy, who was here.

"What really got me into this is that I like to hunt and fish," says Griner, who's only 36. "I decided that the only way I could do that was to create my own business."

"Now if I get home at 6 o'clock and want to go fishing I can change clothes, grab a sandwich, and be casting at my favorite trout stream in 10 minutes.

"Last winter I shot three buck about a mile and a quarter from the house. And there's nothing that beats

taking the dog out in winter to hunt snowshoe rabbits."

(We didn't see any snowshoes, but Griner did show us the trout streams—with trout—and startled a deer at the roadside.)

That part of it was fun, but there's a heck of a lot of work involved, too, as anyone in the commercial refrigeration game knows. Maybe there's a little more than usual because Griner and his men have to cover a lot of territory.

The background that Griner brought with him to commercial refrigeration, along with his desire to hunt and fish, is interesting.

"I started out as a meat cutter. Worked with A & P in Gaylord, Traverse City, and Cadillac. This was before the war. Then I went on the road, running a truck and selling 'Farmer Peet's' line of meats.

"Then I had a chance to sell slicing machines. Knowing the meat business as a meat cutter and a meat salesman was a big help, but this had its limits. About this time I

was also given the opportunity to sell cases. Well, I sold three and my total commission was \$11, yes, just \$11.

"So I wasted no time and headed straight for the factory. When I got through telling them what I thought about a deal like that, they offered to give me the franchise in the territory. We were just getting nicely started with this when the war came along."

During the war he helped speed needed shipments of war goods by working on the railroad ferries between Frankfort, Mich., and ports across Lake Michigan in Wisconsin. That can be mighty rough work in winter.

"We really got under way in commercial refrigeration after the war in 1946," he recalls.

Now he has one salesman and two servicemen working for him, and they cover a big territory in the northwestern part of Michigan.

The operations are handled right out of the farm. (Griner doesn't try to work the farm, too, but he does supervise the hired man in addition to running the refrigeration business.)

"If times ever get tough again at least we'll be able to eat," he points out.

Paper work for the business is done in a small office built on the front end of the house where Griner, aided by his wife and a bookkeeper who comes down from Traverse City (about 30 miles to the north) once a month, keep close account of the business.

The office also doubles as a music room, for Griner plays an enthusiastic trombone in the town band, and his son is studying the instrument too.

Instead of the barn that usually stands nearby the farmhouse, the large, white building near Griner's home provides space for storage of refrigeration equipment, a large service shop, and a garage for trucks. A floor area of 24 by 26 ft. serves as storage space for new equipment.

(Continued on next page)



**"Keep cool with ESTON!"**

**METHYL CHLORIDE  
SULFUR DIOXIDE**

Distributor of "Kinetic" Chemicals' "Freon" refrigerants.

**"FREON 11"—"FREON 12"  
"FREON 21"—"FREON 22"  
"FREON 113"—"FREON 114"**

In Standard Containers



NO CYLINDERS • NO DEPOSITS  
Charg-A-Can  
DISPOSABLE CONTAINER WITH  
"FREON 12" • "FREON 114"  
SULFUR DIOXIDE

**ESTON CHEMICALS, INC.**

3100 E. 26th St., Los Angeles 23 • 4900 Madison St., Chicago 44 • 60 E. 42nd St., New York 17

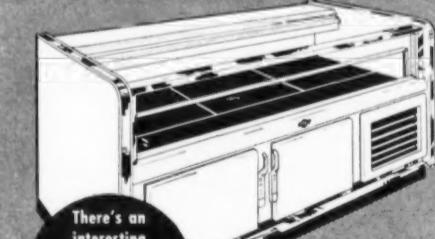
**WAREHOUSES:**

Seattle, Portland, Chicago,  
St. Louis, Jersey City, Los Angeles

SALES OFFICES IN ALL PRINCIPAL TRADING AREAS



**Serving America's  
Finest Food Stores!**



There's an  
interesting  
story for dealers  
in "Bally MEANS BIG  
BUSINESS". Copies  
available

Automatic Self-Defrosting  
FROZEN FOOD CASE  
with Big Lower Storage Section

**...ONE OF 62 DIFFERENT  
BALLY MODELS and SIZES**

**Bally**  
REFRIGERATED DISPLAY CASES  
Bally Case and Cooler Co., Bally, Pa.

## Trucks Prove Good Advertising and Save Freight Bills, and Sometimes Even Sales

(Continued from preceding page) and the floor is at truck-loading height to facilitate loading and unloading of cases, condensing units, etc.

"We usually try to carry in stock one walk-in cooler, an 8 and 10-ft. meat case, a dairy case, a produce case, frozen food case, several power saws, scales, slicers, and 12 to 15 compressors."

Some storage space is available in the 20 by 24 ft. service shop and the 32 by 22-ft. space where Griner keeps his trucks. He can use that much space for he has three Chevrolet trucks.

One is a 1/2-ton pickup; the second is a 2 1/2-ton with a 17-ft. stake body; the third, a carry-all which serves as the conventional service truck.

The latter is a pretty good advertising medium, the way Griner uses it. The body is completely covered with signs on both sides as well as front and rear.

"You'd be surprised," says Griner, "how many people will stop and read all the lettering when the truck is parked in town. It attracts a lot of attention."

The big stake body truck is used to deliver cases for installation but it has a couple of other uses besides.

"If the factory calls and says, 'we've got your order ready but can't find shipping space,' we'll hop in the big truck and get the stuff ourselves. This sometimes saves us quite a bit on freight charges," explained Griner.

"It's also useful when we close a deal at night but the customer says, 'it's all off if you can't deliver tomorrow.' If we don't have what he wants in stock we'll get up at 4 or 4:30 next morning, drive down to Sherer-Gillett in Marshall or Frigidaire Sales in Detroit and be back and have the equipment installed by 2:30 that afternoon."

Selling can be a pretty rugged business up in this part of the country, though Griner perhaps would have some advantage over an outsider. He is a native of Copemish, which is a help in dealing with the local people. However, he has made sales as far as 250 miles from home, so he has something on the ball.

But he also points out that "all my customers are my friends. I've been honest with our customers, and two-thirds of our sales are to former customers."

"I've always tried to work my salesmen a little different too. My boys get 40% of the net profit on the sale; 20% goes for service and overhead, and the remaining 40% is my split."

"I feel that a man has to do that. It gives the men more interest in their work and the feeling that they have a share in the business."

Griner also pays a 15% commission to Eldred Gilbert, whom he keeps on a straight salary as serviceman. The other serviceman who works for Griner is on his own.

"He buys his parts from us, but he keeps all the service income."

Getting back to the problem of selling, Griner has several ideas on that as applied to operating in a territory like his.

"Too many salesmen will stop in a town and make only one or two calls. Probably they'll get discouraged and move on to the next town instead of trying to see every possible prospect while they're there."

The boss himself passes up no bets, and his sales record proves it. For example, in the little town of Mesick,

which is about 11 miles from Griner's base of operations, he has sold and installed 10 pieces of equipment. Population of this little town is only 600.

Not only are the food stores in the town well supplied with Frigidaire and Sherer-Gillett equipment, but the Sandy Mac hotel is a customer of Griner.

In the hotel kitchen where most of the town's merchants drop in of a morning or afternoon for coffee with Ray MacDonald, the proprietor, to hash over local or international problems, there's a Frigidaire water cooler. Sold by Griner, of course.

And then in the back room is an 18-cu. ft. Frigidaire freezer. "Mac" and Mrs. "Mac" are quite happy with that.

"Now," says MacDonald, "Mrs. MacDonald can prepare pies in advance and put them in the freezer. Then we can bake them in a hurry. We also freeze fish for our patrons."

Buying the freezer from Griner

also let the hotel start serving ice cream, which it hadn't done previously.

"The freezer keeps the ice cream at just the right temperature, and having ice cream has tripled our sales of pies, believe it or not. Now that we have ice cream, customers will order pie alamode where before they wouldn't order pie alone for dessert."

A coin meter, incidentally, was on the freezer, and Griner revealed

**PATRONS LIKE** the cold water served by waitress Mildred Miller from the water cooler Griner installed in the Sandy Mac hotel.

that about a third of his sales go in on meters.

"One thing I like about coin meters," he said, "is that they make me get out to see the customers when I make collections."

"Mac" at the hotel, a typical customer, likes the meter too.

"It's the best way to buy things," as far as he's concerned.

Some of Griner's sales are for cash, but most of them are on terms of some sort. He still likes to recall one deal, though, where the sale and in-

(Concluded on next page)



# 14 million buyers can't be wrong!

YES, Frigidaire has built and sold over 14 million refrigerating units. Proof of Frigidaire's leadership. Proof of the tremendous customer demand for Frigidaire products. Proof that the Frigidaire franchise is the most valuable in the industry!



**FRIGIDAIRE... America's No. 1 Line of  
Refrigeration and Air Conditioning Products**

**buy DEAN**  
"Job Tailored"  
**COLD PLATES**  
IN  
THE SIZE  
YOU NEED

Zinc-malvanized steel, or stainless steel in cylinders, L. angles, tanks, etc. Also plates for boudelot-type coolers.

SEND FOR TECHNICAL DATA BOOK  
**DEAN** PRODUCTS, INC.  
1042 DEAN ST. • BROOKLYN 16, N. Y.



"JUNKERS" LIKE this old sulphur machine would ordinarily be thrown away, but Griner hooked it up with a salvaged coil to cool a small ice house at a gas station. Profits which had been melting away paid for the installation.

## REFRIGERATION OUTPOST

**Its Operator Gets Taste of 'Horse Trading' and Finds  
24-Hr.-a-Day Service Helps Clinch Sales**

(Concluded from preceding page)

stallation came to \$1,353.

"The store owner said he was going to pay cash. After the installation was completed, we went to the owner who pulled out a big roll of bills from one pocket. He started counting them out, but there was only \$600 dollars in that roll.

"So he reached in another pocket and pulled out a second roll. He counted off a cool thousand from that roll, and there was still some left. Then took out a third roll for the \$353."

That doesn't happen too frequently, however, so Griner maintains good relations with several banks serving his territory. Not only do the bankers help finance sales, but they give him sound advice on credit risks.

"You have to be a horse trader in this business up here, though," Griner declares. "Not so long ago one storekeeper was anxious to buy a new frozen food case, a new dairy case, as well as new shelving and lights, but he offered a boat and an outboard motor as down payment. We took it."

WELL EQUIPPED and neat, the shop maintained by Griner on his farm has plenty of tools and power equipment for rebuilding and salvaging items taken on trade.

In a deal like this Griner might keep the boat and motor himself or make a deal with another prospect, or possibly trade it for something he himself needed.

Regardless of such details, he tells his salesmen:

"Be sure you make a good profit on the deal but don't rook the customer. Keep him happy because he's never through buying."

Successful selling in these parts, just as in the big cities, also depends to considerable extent on the number of calls that the salesman makes, according to Griner.

"I have a hard time, however, averaging five calls a day, even in town," he admits. "You have to spend a lot of time on it. And it generally takes about three calls to complete a sale when we start from cold canvass."

A number of sales, though, result from leads given Griner by route

salesmen covering the territory. Such leads are worth sizable tips, as far as Griner is concerned.

Another reason for his good sales record probably lies in the fact that Griner can offer "complete food store service" to prospects, including layout planning for stores.

He recently handled such a job for Bernie Crawford in Beulah, about 20 miles from Copernish. This is a small self-serve market in a small town, but it's as modern and attractive as many of the largest "supers."

Griner supplied and installed all the steel shelving and checkouts as well as an 8-ft. frozen food case, two 6-ft. dairy cases, a refrigerated produce case, a 10-ft. open meat case, and a 10 by 12-ft. porcelain walk-in cooler.

"Sometimes to clinch a sale I'll suggest to the prospect that he let me drive him to the factory to look over layouts and equipment. When I can spend a day with a man who's gotten away from his business for a while and obtained a different slant on things, it's easy to sell him."

Another sales clincher is the fact that Griner offers 24-hour-a-day service, seven days a week. This means covering a lot of ground sometimes (although he usually farms out the service on the distant jobs), but it does pay off.

His service shop at the farm is roomy, well lighted, and complete, even to a lathe for working on motors and other parts. He also has an arc welder and an acetylene torch.

"The arc welder comes in mighty handy in reworking cases," Griner says, explaining that they try to salvage just about everything they can get.

"We'll take an old case in on trade and rework it completely. Often," he adds, "we'll convert these cases to self-contained jobs. Doing it this way saves a lot of tubing, which is hard to get, and besides we get most of the work done in our shop where we have the equipment and tools to do it right."

"There's a good market for reconditioned commercial equipment, and customers who are satisfied with a rebuilt case become good prospects for new equipment later on."

The fact that Griner is prepared to salvage and resell just about everything he takes in on trade offers him quite an advantage, of course, in making a sale.

And he's even figured out what to do with old sulphur equipment that most firms would probably junk if they took it in on trade.

"There are a number of gas stations and small stores up in these parts who sell ice to some of the summer people. Ice costs the dealer \$120 a ton, so he can't afford to let it melt. What we've done is to install an old sulphur machine and coil to cool these ice 'shanties' and keep the ice from melting."

"We don't have to charge much and yet it's a profitable way to dispose of some of the stuff we take in

on trades. We explain to the buyer that the equipment probably won't run for very long, maybe two or three years, but it will more than pay for itself in that time. Maybe he'll be a prospect for new equipment then."

As if he hadn't figured most of the angles already, Griner is now working on another. He's quite an export color photographer, shooting in 35 mm., and he's decided he can make this hobby pay sales dividends.

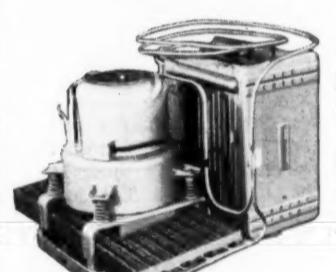
"I'm going to take color pictures of equipment and attractive installations and then I'll take the slides along with my screen and projector over to a prospect's home after he's closed up the store and show him and his wife just what modern equipment and careful planning can do for their business. This ought to be a convincing sales approach."

**AIRO stands for**  
Fast, dependable,  
world-wide service.  
Refrigeration and  
Air Conditioning parts  
and supplies.  
Write for current Catalog

**AIRO SUPPLY CO.**  
2732 N. Ashland Ave., Chicago 14, Ill.

**TAKE ADVANTAGE  
of  
DEVALUATION**

**LECO**  
REFRIGERATOR  
SEALED UNITS  
ALL VOLTAGES

**T  
H  
E  
L  
E  
C  
O  
M  
E  
T  
I  
C**  


Now available for the trade at keen prices either with body and starting relay only or complete, ready for immediate installation as depicted above, the "LECOMETIC" suitable for ambient temperatures up to 110° F.

We can offer standard open type condensing units. Also the LEC range of domestic cabinets.

**ARN SALES DEPT.**  
**LONGFORD ENGINEERING  
CO., LTD.**  
BOGNOR REGIS  
ENGLAND  
Telegram:  
Longworks  
Bognor

## OPPORTUNITY OF A LIFETIME

The owner of one of Washington's (D.C.) oldest and finest businesses in air conditioning, refrigeration and kindred lines will consider the sale of same to responsible party/s who will carry on the name of same, with all that it implies.

Distributor franchise for a nationally known and complete line with thousands of local installations.

Large display, shop, garage and storage facilities; fully equipped, inventoried and completely staffed with sales, engineering, installation and service personnel including machine shop and motor repair and maintenance facilities.

Excellent government contacts and customer goodwill, making expansion absolutely unlimited. A-1 Trade relations.

Requires about \$25,000 for deposit and working capital. Long terms on out of profits basis. Owner has other interest but will be available on advisory basis.

Submit full details to Box 3751, Air Conditioning & Refrigeration News.



MOST REBUILDING is done during the winter months when ordinary service slacks up. Used cases are often converted to self-contained jobs.

## MONEY MAKER in any man's language



**DISPLAY CASE • MODEL DC-16**

**FROZEN FOODS Service**

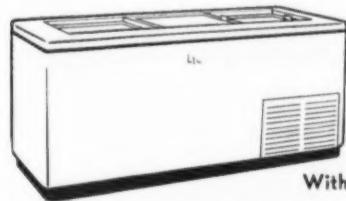
In Vegetables		In Vegetables		In Vegetables	
WAX BEANS	35	WAX BEANS	35	WAX BEANS	35
CAULIFLOWER	35	CAULIFLOWER	35	CAULIFLOWER	35
LIMA BEANS	35	LIMA BEANS	35	LIMA BEANS	35
PEAS	35	PEAS	35	PEAS	35
SPINACH	35	SPINACH	35	SPINACH	35
GREEN BEANS	35	GREEN BEANS	35	GREEN BEANS	35

LOBSTER 31 STRAWBERRIES 35 TUNA FISH 35 LOBSTER 31 STRAWBERRIES 35 CRAB MEAT 35

CHICKEN FRICASSE 35 BLUEBERRIES 35 CHICKEN FRICASSE 35 CHICKEN FRICASSE 35

CHICKEN FRICASSE 35 CHICKEN FRICASSE 35 CHICKEN FRICASSE 35

**MODEL DC-16-3D**  
With superstructure  
and colorful,  
3-dimensional pictures.



**MODEL DC-16-3**  
Without superstructure.

Here's one frozen-food case that rates a place on every dealer's floor. It's Brewer-Titchener's DC-16 . . . one of the most popular, most profitable cabinets in the entire BTC line.

SO MUCH STORAGE SPACE 16 cubic feet of storage in a floor area only 76" by 28" . . . thanks to BTC's new vapor-sealed insulation!

SO SMART-LOOKING TOO Trim lines, gleaming-white finish and stainless steel capping make it an outstanding attention winner!

What's more, Brewer-Titchener's DC-16 offers all of these wonderful features: all-steel Bonderized cabinet; three Thermopane rolling glass lids; ½ H.P. hermetic compressor; plus a 5-year compressor and 2-year food spoilage warranty. Get the full facts on this Model DC-16 Display Case by writing Brewer-Titchener today!

**THE  
BREWER-TITCHENER  
CORPORATION  
Binghamton • New York**



KENNEL OWNER, W. J. Wilkinson, installed a Frigidaire window unit near the cages of his champion Pomeranians in order to keep them from shedding their fine red and gold coats during hot summer weather. He says it helps to keep them healthy, too.

## It's a Dog's Life

### Prize Pomeranians Kept Healthy, Comfortable In Kennel Cooled by Window Air Conditioner

FREDERICKSBURG, Va.—A dog's life may not always be a bed of roses, but some 20 little red and gold Pomeranians are really living in a dog's heaven here. They've got an air conditioned dog house.

These lucky dogs, who inhabit the Wil-Pom-Ken kennels here, are no ordinary canines. They're champions in their class. They've won 11 medals in the past 10 years.

But, champions or no, they feel the summer heat just as much as

any mongrel on the street. And, as toy Pom's chief beauty lies in its fluffy, heavy coat of fur, the owners—the W. J. Wilkinsons—don't like to see them shed it.

One day last year, Wilkinson, who has bred these dogs for 12 years, happened to be talking about the plight of his dogs. He found a sympathetic listener in the local Frigidaire dealer.

"Air conditioned dog house, huh? Well—well—won't hurt to come out

## Midwest Mfg. Moves Into New Manufacturing Plant

MINNEAPOLIS — Midwest Mfg. Co., formerly of 101 Glenwood Ave. here, has moved its operation to 2816 Dupont Ave., So., where it will be permanently located in its newly-purchased building.

The firm will continue manufacture of walk-in coolers, walk-in freezers, florist cases, cold storage doors, locker plants, and other commercial refrigeration rooms, custom built, under the registered trade name "Chill."

The new quarters contain 11,600 ft. of floor space for manufacture, and 30,000 ft. of ground area. The building is of cement block and brick construction, and, when arrangements are completed, will have a large loading dock and delivery doors sufficient in size to accommodate trucks.

Robert F. Strupp, general manager of the business and inventor of the "Lockseam" system of connecting sections, estimates the increase in efficiency due to the one floor layout and the larger machinery possible will be at least 25%.

"Dealers can expect faster shipments on their orders after production is resumed at full speed," he said.

## Dr. Mills Organizes Firm To Promote Reflective Heating, Cooling Theory

CINCINNATI — Dr. Clarence A. Mills of the University of Cincinnati has organized a corporation and applied for patents to promote and protect his theory of reflective radiant cooling and heating, it was announced here.

Widely known for his studies of how weather and climate affect mankind, Dr. Mills last year moved into his unique home which was heated and cooled by the principle of reflective radiant conditioning which he had developed.

This project received considerable mention throughout the technical and consumer press.

The new company is called Reflectotherm, Inc., and is headed by Dr. Mills as president. Dr. Russell Mills of the University of Kansas is vice president, and Don Mills, a student at Cincinnati university, is secretary-treasurer.

Supply of enough reflective foil to erect 70 homes incorporating this form of heating and cooling has been promised the new company, it was said, although no definite plans for such a building program were announced.

*Serving America's Finest Food Stores!*

OPEN STYLE Single Shelf Case  
Front and Rear Loading Models  
Canopy Available  
...ONE OF 62 DIFFERENT BALLY MODELS and SIZES

*Bally*  
REFRIGERATED DISPLAY CASES  
Bally Case and Cooler Co., Bally, Pa.

and look things over—make an estimate . . ."

And that's how another sale was made by Dwight T. Mills of C. H. Montgomery & Co., Inc. here.

Before the panting dogs knew what was going on, their kennel, at the back of the Wilkinson's home, was equipped with a Frigidaire model ARM 50 window air conditioner.

"You should see the dogs," Mrs. Wilkinson says. "When we turn them into the runs for exercise, they come crowding back against the door, begging to come in where it's cool.

"We keep it about 10 to 15° F. cooler than the outside temperature, because a greater difference in temperature would result in asthma and coughs.

"And oh, their coats! Why, there's just a world of difference in the amount of shedding as well as in their comfort and health."

## El Paso Cooling, Heating Dealers Form Association

EL PASO, Tex.—The El Paso Air Cooling & Gas Heating Dealers Association was organized here recently with Jay Turner elected president.

Other officers are Jimmy Wiggs, vice president; James V. Lawless, secretary-treasurer; D. Browning and Frank Dupuy, directors. Turner, Wiggs, and Lawless automatically became members of the board also.

At the organizational meeting members went on record against price-gouging and other alleged mal-practices in the industry. It was decided to establish a grievance committee to which the public may take complaints concerning installation of air cooling and gas heating units.

## 3 Refrigerated Cases

### Display Cut-Up Poultry In Cincinnati Dime Store

CINCINNATI—Three 8-ft. refrigerated display cases were recently installed in the Newberry 5 and 10 cents store at 6th and Race Sts. here for the merchandising of cut-up poultry exclusively.

The installation was made by the Waldron Poultry Co. and the cases sold to Waldron by the P. H. Broering Co., local McCray distributor.

C. F. Overberg, secretary of the Broering firm, declared that the installation was a bit unusual because the poultry department was extremely limited in space available, both in length and depth.

"In order to get maximum display," he said, "and still have sufficient room for three employees to work behind the cases in 18-in. spaces without interference, we constructed two sections between the cases.

"The top is used for service with sink and hot and cold water under the counter top. Balance of the space beneath the counter top is used for supplies."

Overberg pointed out that the two service sections were built to match the outline of the refrigerated cases, giving the whole installation the look of a continuous display.

In order to get maximum high display of chicken parts, shelves were put in the cases. On these shelves were set McClinton platters 28 in. long and 2 in. deep. A number of holes were drilled into the bottom of the platters for drainage.

## New Preservation Process

### X-Ray, Refrigeration Keep Milk Fresh 7 Weeks

NEW YORK CITY—Raw, unpasteurized milk, charged with heavy doses of X-rays, has been preserved under ordinary refrigeration for periods up to seven weeks by Columbia university research scientists here.

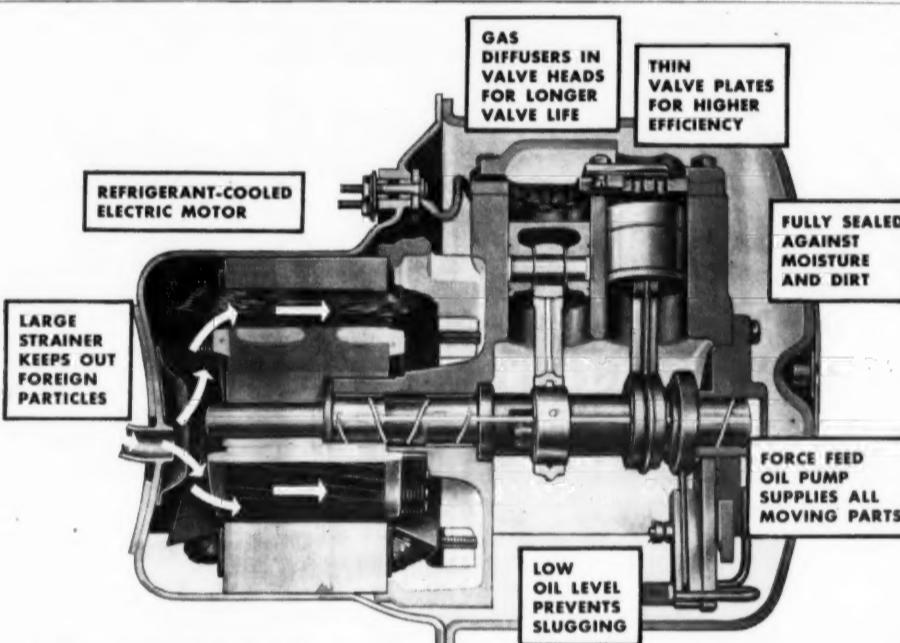
Though the milk at the end of this time retains its flavor, nutritive value, and appearance, the researchers have still to determine whether or not the irradiated milk has any adverse effects on growth rate, reproductive processes, or hereditary characteristics, according to the report.

A project to determine these factors on fast reproducing animals is now being started and is directed by Dr. Charles Glenn King, who is scientific director of the Nutrition Foundation and Columbia nutrition authority.

The scientists reported to the Institute of Food Technologists recently that they treated samples of milk with as much as 100,000 Roentgen units of radiation without detecting any amount of radioactivity.

They said that no radioactivity was found in samples receiving up to 1,000,000 Roentgen units.

Though they used a 2,000,000-volt X-ray machine, the scientists said that the same doses could be obtained from mixed fission by-products of atomic furnaces. These by-products are mostly unused now, they added.



## HERE'S INSIDE INFORMATION

### TO PROVE THAT

# SERVEL SUPERMETICS

ARE SOUNDLY ENGINEERED  
AND SOUNDLY BUILT!

## BACK OF WHAT'S INSIDE OF EVERY SERVEL SUPERMETIC ARE...



Servel Supermetics and Genuine Factory Parts Are Available Through 92 Authorized Wholesale Suppliers

★ 30 YEARS of refrigeration engineering and manufacturing experience . . .

★ MORE THAN 70 ACRES of modern refrigeration plant and equipment, and . . .

★ A RECORD of trouble-free performance that makes possible Servel's

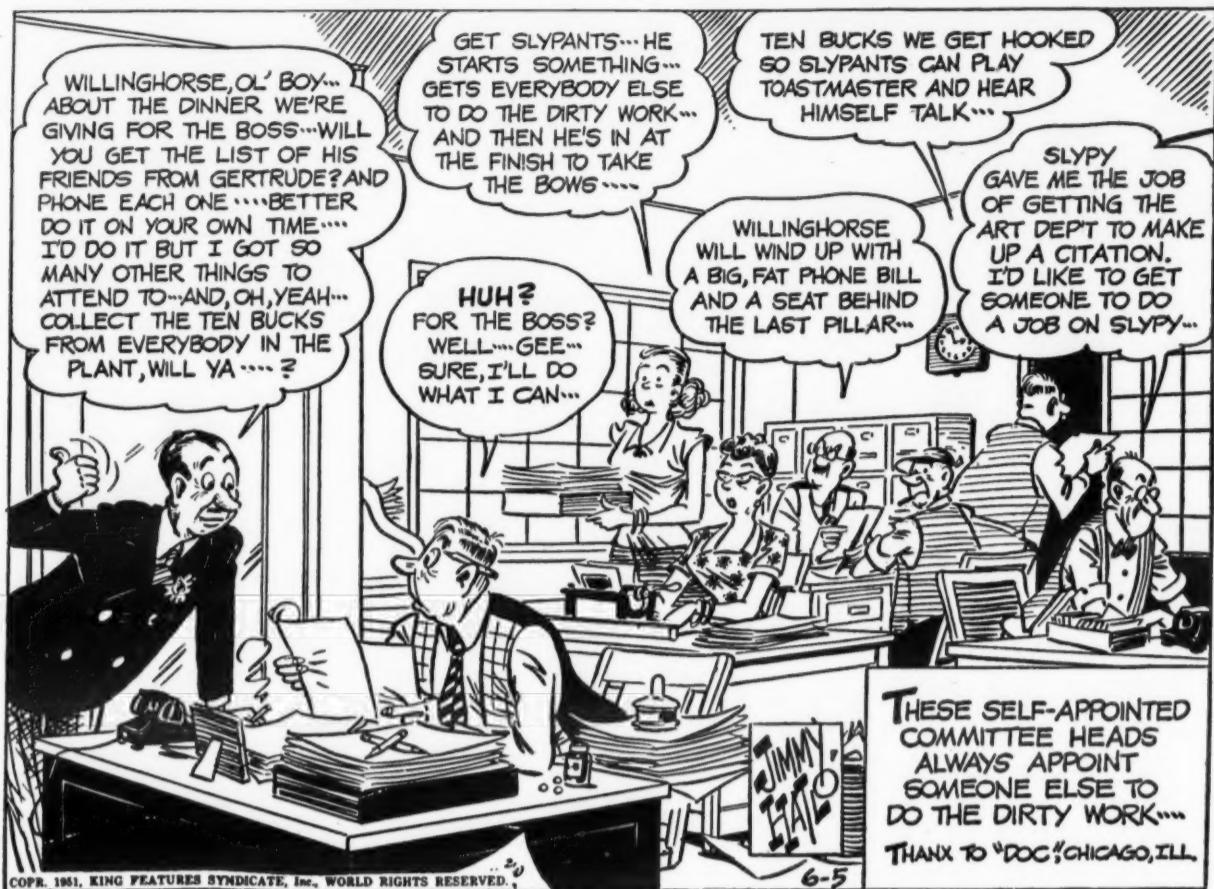
5-YEAR FACTORY WARRANTY

**Servel**  
**SUPERMETIC**

Models for every commercial refrigeration and air-conditioning use . . . 1/5 to 5 H.P.

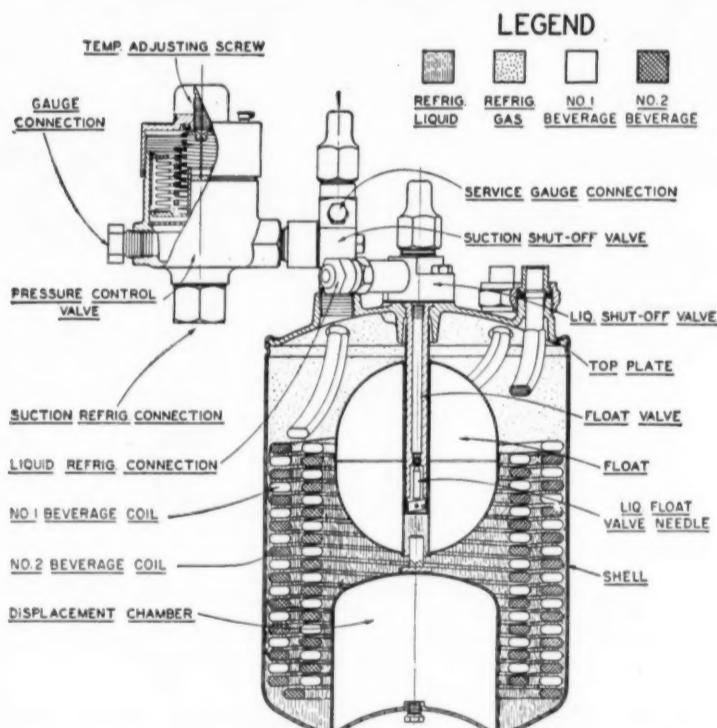
SERVEL, INC., ELECTRIC REFRIGERATION DIVISION, EVANSVILLE 20, INDIANA

## They'll Do It Every Time . . . By Jimmy Hatlo



### Do You Have 'Both Feet On The Ground'?

## Perfect 40° control\* WITH TEMPRITE INSTANTANEOUS LIQUID COOLERS



### Patented Principle gives High Capacity with Quick Recovery

**YOU CAN BUILD increased sales volume with Temprite Coolers, because you can offer instantaneous cooling of a great variety of liquids in a long list of potential applications . . . and you can build good-will and confidence with Temprite's established reputation for efficiency!**

**EXTREMELY HOT WEATHER** and rush-period demands will not affect the cooling efficiency of a Temprite! A sparkling cool, ideal 40° beverage is assured . . . thanks to Temprite's patented principle, in which the cooling coils are directly submerged in the liquid refrigerant!

Heavy demands on the cooler are immediately offset by an extremely high overload capacity and instantaneous recovery, guaranteeing a highly accurate exit temperature!

\*40-degree exit temperature is our standard factory setting. Settings from 5 degrees to 68 degrees above zero can be provided on request, depending upon individual liquid cooling requirements.



### 18 MODELS

... in capacities from 15 gals. to 147 gals. per hour, (80° to 40°), handle as many as 5 separate liquids from the same cooler at the same time. All are highly compact; require little installation space. Units may also be used in multiple. Stainless steel or copper coils.

### Cools Water, Beer, Carbonated Drinks

TEMTRITE Coolers are designed to cool water for drinking, for photographic and X-Ray processing, for bakery dough cooling, etc., etc. Beer Cooler models are available to handle 1, 2 or 3 brands of beer from a single unit, and can be supplied with exterior coils to also cool plain water and carbonated water. For applications in which carbonated beverages, mineral oils, alcohol, etc., etc., are cooled, stainless steel cooling coils are furnished.

TEMTRITE PRODUCTS CORPORATION  
P. O. Box 72-A, Birmingham, Michigan

Send me complete details on Temtrite Instantaneous Coolers.

NAME \_\_\_\_\_  
COMPANY \_\_\_\_\_  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_

AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD

Trade Mark  
registered  
U. S. Patent  
Office;  
Est. 1926

AIR CONDITIONING AND  
REFRIGERATION News

F. M. COCKRELL, Founder

Published Every Monday by BUSINESS NEWS PUBLISHING CO.  
450 W. Fort St., Detroit 26, Mich. Telephone Woodward 2-0924.

Subscription Rates: U. S. and Possessions, Canada, and all countries in the Pan American Postal Union: \$5.00 per year; 2 years \$8.00. All other foreign countries \$7.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Please send remittance with order.

GEORGE F. TAUBENECK  
Editor and Publisher

PHIL B. REDEKER, Editorial Director

C. DALE MERICLE, Associate Editor

JOHN SWEET, Assistant Editor  
HUGH MAHAR, Assistant Editor  
GEORGE HANNING, Assistant Editor  
MARGARET DEAN, Assistant Editor  
Editorial Assistants: MARGARET  
POMMERENING, BERNICE SHEPLOW.

E. L. HENDERSON, General Manager  
ROBERT M. PRICE, Adv. Mgr.  
ALLEN SCHILDHAMMER, Western  
Adv. Mgr.  
SHIRLEY J. HOY, Adv. Secy.  
WALTER J. SCHULER, Production Mgr.  
JOHN F. JOLIAT, Circulation Manager

Member, Audit Bureau of Circulations. Member, Associated Business Papers.

VOLUME 63, NO. 10, SERIAL NO. 1,164, JULY 9, 1951

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

### Notes on Salesmanship During Rearmament

SALES MEN, someone has observed, are somewhat like the football team whose coach had a sense of humor.

"Men," he growled, "we are undefeated, untied, and unscored upon—and ready for the first game of our season!"

What has happened to the profession of salesmanship is that the American salesman has been warming and warping the bench on the side lines. In the last decade he hasn't been called upon to block and tackle hard, or to carry the ball with speed and power.

In too many cases he is sadly out of condition. Furthermore, he hasn't had good coaching, nor very much of it.

And that's a shame.

Salesmanship is an American invention. It is founded on the adage that fair dealing commands respect, respect breeds confidence, and confidence builds business. It is also predicated on the assumption that most people don't know what they want until they are told about something and *taught to want it*.

In the United States some goods are bought, but most products are sold. To develop a market for a product one must organize a sales force, launch an advertising campaign, establish good dealer relations, and hire and train salesmen.

"Red" Motley, dynamic publisher of *Parade* magazine, maintains that "the factory whistle can't blow until the cash register rings!" Also he has said that "nothing happens in industry until something is sold."

World-renowned Charles Kettering, General Motors' largest stockholder, has told audiences: "My home is in Dayton, and I was a friend of the Wright brothers. When they made those first three flights on Dec. 17, 1903, they wired their sister that they had succeeded, and that they would be home for Christmas. She thought this was important news, so she called a Dayton newspaper on the telephone. She rang and rang and rang. The newspaper boys were playing pinochle, but finally one of them answered.

"She said, 'This is Katherine Wright speaking,' and excitedly she read the telegram.

"The city editor yawned, but was diplomatic. 'Glad to hear the boys are going to get home for Xmas,' and hung up the phone. When he returned to the game, he told the others, 'Nobody's going to catch me on that, because it has been proved mathematically that a heavier-than-air machine can't fly!'"

Aviation had to be sold, as did refrigeration, air conditioning, frozen foods, and practically every new product which has made America prosperous. Salesmanship has created more new jobs than any other force in American history. We should never lose sight of that fact, no matter how scarce our products may be temporarily.

There are no salesmen in Soviet Russia. Along with the freedom to choose goes the freedom to sell. A controlled economy, offering little or no freedom of choice, doesn't have room for salesmen. Nor can it provide higher living standards.

*Moral:* While defending our way of life, we mustn't let the salesman sit on the bench too long. He is the most important prime mover in our way of life, and should be kept in good condition.

When salesmen don't have enough products to sell, their idle time should be occupied with more study and training. No one ever knows enough about his profession.

"Be right with Temprite"  
**Temprite**  
PRODUCTS CORPORATION  
P.O. BOX 72-A, EAST MAPLE ROAD  
BIRMINGHAM, MICHIGAN



FORMER STORAGE BUILDING attached to Hast Lumber Co., Denver appliance dealer, was converted into a meeting place for small groups. Completely outfitted with 18 major appliances, Hospitality House serves the double purpose of showroom and goodwill builder. Advertisements invite groups to come and prepare lunch, thus selling themselves without using "high-pressure" tactics.

## At Hospitality House

### Denver Appliance Dealer Invites Groups To Use Appliances and Sell Themselves

DENVER—Setting up an attractive "Hospitality House," which groups of women may use as a meeting place, with "no strings attached," has proved a highly successful approach to appliance merchandising at Hast Lumber Co. here.

Located several miles north of Denver, amid a large number of small suburban towns, Hast Lumber Co. has always felt that there was too much "high pressure" in major appliance merchandising. Therefore, in going into the field in June, 1950, Herbert and August Hast, heads of the firm, determined to build an appliance volume on "goodwill alone."

The firm spent \$1,600 to remodel a former storage building into a 22-ft. by 12-ft. "Hospitality House" which displays 18 major appliances, including a complete model laundry and model kitchen. Every appliance is connected, all refrigerators, home freezers, are full of actual foods, and the women's groups which use the room are encouraged to prepare a lunch, or a full meal, if desired. Carl Meyers, a veteran major appliance

specialty man, was put on the payroll to handle the management of Hospitality House.

The Colorado firm's newspaper advertising, in a small weekly newspaper covering the communities involved, reads: "We cordially invite all small clubs and groups to meet in our Hospitality House. You may use the appliances to prepare your lunch!"

Meyers makes it a point to attend the latter part of each business meeting, when he demonstrates whatever appliances the visitors want to see in operation and helps out with food preparation. However, no visitor is pressured into signing a registration card, which will mean a follow-up by a salesman.

Instead, the Hast firm leaves it up to their pleased goodwill to make sales. There is no outside selling whatsoever, and the Hast organization feels that if a guest goes home to tell with pleasure of her experience in the Hospitality House, the purpose of the room has been achieved.

The bill attracted much attention in view of the rapid expansion of the use of LP gas appliances.

A number of independent dealers contended it would merely create a monopoly of the business for the big dealers. As a result of this argument, the state attorney general's office was asked to rule upon the constitutionality of the proposed legislation before final passage.

The bill was ruled constitutional because primarily "the act is presented as a safety measure," and while some personal rights might be violated, "it gets its validity from the power, inherent in our government, to enact laws to protect the safety, health, and general welfare." The opinion pointed out that in event of trouble, the owner would be held liable, and by reason of this fact the restriction was held to be constitutional.

Principal sponsors of the bill were said to be the Butane Gas Corp. and Blaugas Co., both of Omaha, Anderson Appliance Co. of Lincoln, and Skelgas, subsidiary of Skelly Oil Co.

### Only Owner of LP Gas Container Can Fill It, Nebraska Law States

LINCOLN, Neb.—Criminal penalties for the filling of a liquefied petroleum gas container by anyone but the owner are provided in a bill passed by the state legislature and signed by Governor Val Peterson.

Gov. Peterson signed the bill—LB-476—along with another one which permits cities maintaining gas plants or systems to extend gas main service to smaller adjacent communities. This measure will thus open up new markets for the sale of gas appliances.

The new LP gas regulatory law was amended before final passage to provide that a customer may purchase a container from a dealer and, if he does, it may be filled on "the open market." Containers must be properly marked, however.



### YOU CAN'T BEAT THE VICTOR Refrigerated Rooms For Every Purpose

- Normal Temperature Rooms
- Zero, Low Temperature Rooms
- Tailor-made Rooms for any required temperature, of any desired size.

For information write:

**VICTOR**  
MANUFACTURERS OF THE FAMOUS VICTOR QUICKFREEZE

PRODUCTS CORPORATION • HAGERSTOWN, MD.



## Thor Corp. Inaugurates Laundry Program with Educational Films, Kit

CLEVELAND—The basic fundamentals of good laundering cannot be emphasized too greatly in home economics classrooms if the homemakers of tomorrow are to receive the maximum benefits designed into modern washing machines.

So declared Mary K. Dougherty, director of home economics for Thor Corp., who introduced a new educational program emphasizing the "ground rules" of good home laundering technique at the annual meeting of the American Home Economics Association.

"Too many of today's homemakers still use laundering habits adopted by their mothers and grandmothers 20 years ago," Miss Dougherty charged, adding:

"Their daughters are going to fall into the same rut, unless our schools drill them in home laundering techniques in step with the modern machines, soaps, detergents, and other aids which are available to them," she indicated.

Featured in Thor's new educational program, which is being offered without cost to home economists, is a 35 mm. "silent" film strip, and an accompanying written commentary, both titled "Modern Washing Methods."

Miss Dougherty said a silent film strip was selected because of its flexibility.

For example, the length of the lesson may be shortened or lengthened by the teacher at her discretion.

Also, a second run of the film strip,

without the teacher's commentary, will furnish a convenient question and answer period if such a period is desired.

The film covers such fundamentals as: importance of sorting clothes, stain removal and pre-treating of heavy soil, correct water temperatures, soaps and detergents, size and type of load, correct washing times, adequate washing action, rinsing, and water extraction.

In addition to the film and commentary, the Thor kit includes a new type stain removal chart for the teacher's reference, and a copy of "Doings," a monthly magazine published by the company's home economics department.

Authoritative in content, it will furnish material for classroom discussion, Miss Dougherty further indicated.

The initial kit will be supplemented by monthly mailings of new issues of "Doings" and an amplification of each issue's feature article, directed to classroom use.

Miss Dougherty said this procedure will make available to teachers of high school, college, and university home laundry classes up-to-date information from the company's testing laboratories.

While designed primarily for schools, the Thor plan will also be available to home directors of utility companies, extension workers of the U. S. Department of Agriculture, and others conducting home laundry classes, the company said.

### If You Hit the Bull's Eye

## Jackpot with Lots of Jack, Or Well-Stocked Wardrobe Spur I-H Houston Salesmen

HOUSTON, Tex.—International Harvester Co.'s refrigerator and freezer dealers in the Houston district are being invited to "Shoot for the Bull's Eye" in a spring sales promotion campaign sponsored by Lack's Wholesale Distributors, Inc., I-H refrigeration distributor located here.

Designed to promote the sale of refrigerators at the retail level, the contest, which runs until June 30, offers inducements to potential buyers as well as incentives to the retail salesmen.

Salesmen who qualify for the contest win a pair of shoes if they "hit the target" with five sales, a new hat with eight sales, a complete suit of clothes with 12 sales.

And then there's the "Bull's Eye." The three salesmen who sell the most number of I-H refrigerators by June 30 will divide a big jackpot—with emphasis on the jack.

Lack's officials have classified as top secret the amount of money it will contain, but they promise it will be well worth winning.

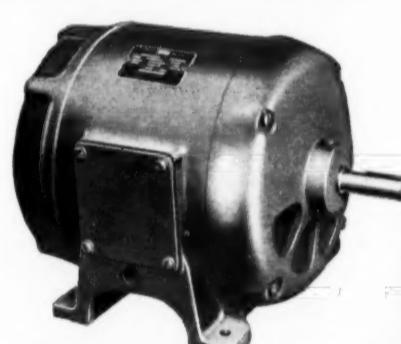
The promotion is being pushed by a series of eight "premium offer" newspaper advertisements, which dealers are furnished by the distributor. Also furnished to dealers are special radio scripts promoting the premium offer campaign. Premiums are made available to dealers at cost by the distributor.



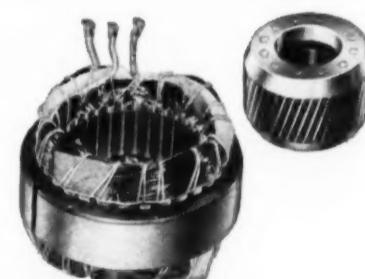
▲ Delco Single-Phase, Repulsion-Start-Induction Fractional Motor,  $\frac{1}{2}$  through  $\frac{3}{4}$  h.p. Also in these sizes (only) with Condenser Start.



▲ Delco Single-Phase Fractional Motor with Current-Limiting Capacitor,  $\frac{1}{6}$  through  $\frac{1}{3}$  h.p. For blowers and open type compressors.



▲ Delco Single-Phase, Repulsion-Start-Induction Integral Motor, 1 through 5 h.p. Polyphase Integral, 1 through 100 h.p.



▲ Delco Hermetic Motors,  $\frac{1}{16}$  h.p. and up; Split-Phase Condenser Start, and Condenser-Start-Condenser Run; precision made, long lasting.

for quiet motor operation

for Air Conditioning and Refrigeration

# DEPEND ON DELCO

Quietness in an electric motor is a matter of correct design, precision manufacture and expert assembly—qualities that are present in Delco motors to a notable degree. And to make Delco motors of even greater value to appliance manufacturers, they are backed by a nationwide service organization with strategically located stocks of replacement units and parts.

## DELCO MOTORS

DELCO PRODUCTS

Division of General Motors Corporation, Dayton, Ohio

SALES OFFICES: CHICAGO • CINCINNATI • CLEVELAND • DALLAS • DETROIT • HARTFORD • PHILADELPHIA • ST. LOUIS



# What's New

When requesting further information on new products, please use "Information Center" form.

## Combination Unit Barbecues Hot Dogs, Warms Buns



KEY NO. A-720

CHICAGO—A portable, electrically operated unit that barbecues and keeps ready to serve two dozen hot dogs at a time has been introduced under the name Nahdgee-hut, by Nahdgee, Inc. here.

The stainless steel unit also contains a heating compartment above the barbecuing compartment that keeps buns oven-warm. It can also be used for keeping other snacks such as chili, corned beef, and sliced pork hot.

Nahdgee-hut is 18 in. high, 12 in. deep, and 12 in. wide. It is enclosed

on top, back, and sides and open in front.

It consists of a built-in oven warming compartment, a rotating barbecue spit that holds the hot dogs in cradles rather than impinging them on prongs, electric heating elements with thermostatic heat control, and a motor box at the right which houses the electric motor, reducing gears, switches, etc., for revolving the barbecue spit.

Nahdgee-hut operates on 110 volts, 60-cycle a.c. Each machine carries a standard 90-day guarantee against defects in materials. Tongs for removing the hot dogs are included with each unit, according to the company.

The unit has three operating positions: high, low, and neutral. High position is used for barbecuing with the temperature going as high as 215° F.

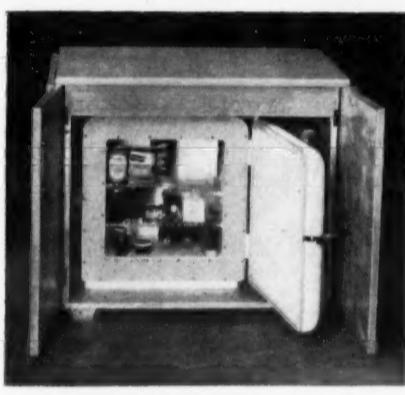
Low position is used for keeping the hot dogs warm. In neutral, the heating elements are turned off but the barbecue spit continues to revolve slowly.

The revolving spit with the hot dogs turning is claimed to be an eye-catching feature whether the Nahdgee hut is placed on a counter bar or in a window.

The unit weighs only 17½ lbs. and is easily portable.

The Nahdgee-hut has a retail selling price of \$134.50, f.o.b. Chicago.

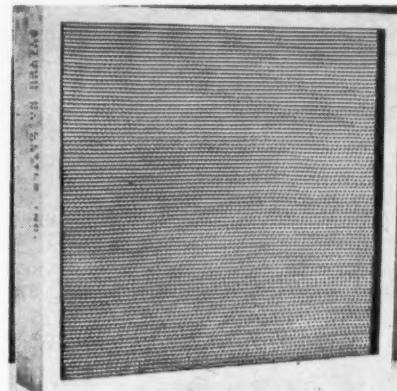
## Furniture-Type Refrigerator Has 2-Cu. Ft. Capacity



KEY NO. A-721



REFRIGERATOR WITH 2-cu. ft. capacity is enclosed in console-type cabinet faced with bleached mahogany. Cabinet also has space for canned goods, fruit, or dry storage. Refrigerator has two ice trays. The unit was introduced by Arthur S. Opiner at the Summer Furniture Marts.



KEY NO. A-722

## Paper Air Filter Removes 99% of Foreign Matter

SYRACUSE, N. Y.—An absolute air filter, developed originally for the Atomic Energy Commission and capable of removing better than 99.98% of all dust, smoke, fumes, radioactive particles, spores, and other microscopic foreign matter from the air, is now being produced in quantity for commercial use, it was announced by Cambridge Corp. here.

The new filter is especially applicable wherever absolutely clean air is needed for processing, or where toxic or radioactive fumes or dust must be prevented from escaping to the atmosphere or from entering working areas or shelters, the company stated.

The filter is being manufactured at present in two standard sizes with rated capacities of 500 and 800 c.f.m. Individual units may be arranged in multiple banks of filters in built-up ventilating or exhaust systems or central station air conditioning systems to handle any desired amount of air.

Exhaustive laboratory tests have demonstrated that the filter when new will remove 99.98% of all measurable particles including those in the especially critical size range of two to three tenths of a micron in diameter. A micron is less than  $\frac{1}{25000}$  of an inch.

As the filter is used, its efficiency rises even higher, with the number of particles permitted to pass decreasing from two-hundredths of one per cent to a few thousandths. The static pressure resistance of the filter when new is less than one inch of water.

The filtering material is a soft, felt-like paper made of specially treated pulp containing very fine asbestos fibers. The paper is folded and packed into the filter in an accordion pleat arrangement to provide an extensive filtering area within a small space.

Dimensions of the filter are 24 by 24 by  $5\frac{1}{2}$  in. deep for the 500 c.f.m. size and 11½ in. deep for the 850 c.f.m. size.

Cambridge Corp. is now producing

filters for the Atomic Energy Commission and for a number of industrial users.

The company is jointly owned by Carrier Corp. and by Arthur D. Little, Inc., research and development engineers who developed the filter.

Indications are that the filter will be particularly valuable in the manufacture and processing of photographic film, and the manufacture of chemicals, electronic tubes, and optical and other precision instruments where completely clean air is required; in pharmaceutical plants where mold spores as well as bacteria-carrying dust must be avoided; in laboratories of all kinds and hospital operating and delivery rooms; and in automatic telephone exchanges.

A special use may be in breweries to prevent airborne mold spores from affecting the fermentation process.

Another large class of users will be the growing number of firms working with radioactive materials where escaping dust would be a hazard, and plants where toxic fumes emitted as a by-product of an industrial process must be prevented from entering the atmosphere.

The filters can also be used to protect bomb shelters against radioactive dust.



KEY NO. A-724

## Westinghouse Develops New Ozone Lamp

BLOOMFIELD, N. J.—A tiny lamp that dissolves odors with a triple dash of ozone, replacing unpleasant smells with clean air, was announced recently by Westinghouse Electric Corp.

Three times as powerful as the ozone lamp which Westinghouse introduced in 1945, the new "Odorout" bulb explodes odor molecules in air instantly.

This occurs as ultraviolet radiations of special wavelength—generated by the lamp—transform the oxygen around the lamp into ozone, an air purifier.

The company said the 3½-watt lamp, when burned in a special wall fixture, destroys cooking, dampness, mildew, and perspiration odors.

It recommends its use in kitchens, living rooms, dining rooms, bedrooms, basements, clothes closets and medicine cabinets, and in physician's, dentist's, and business offices.

Thousands of ozone lamps already are in use in clothes dryers and washers, professional hair drying equipment, and in beverage vending machines.

The new lamp, the size of a walnut, was developed by F. H. Rixton, young Westinghouse engineer, as a "by-product" of a search for another engineering improvement.

The bulb alone lists at \$1.30 and lasts six months when operated 24 hours a day. It must be burned in a special fixture with a current-controlling device such as a transformer.

## Pressure Cooker Connects Directly to Steam Line

EVERETT, Mass.—A Steam-It commercial pressure cooker that connects directly to an existing steam line has been introduced by the Food Service Equipment division of Market Forge Co. here.

The new cooker is very similar to the company's gas fired Steam-It in appearance. With the new unit, the company points out, pressure cooking begins immediately. With the gas-fired unit, it was necessary to wait a few minutes until the unit had generated its own steam before cooking time began.

The company believes that the new cooker will be of particular interest for kitchens where direct steam is available and frequent, fresh preparation of small quantities of food is desired.

Advantages of the unit are claimed to be 50% faster cooking with consequent fuel savings and complete elimination of handling and scouring of heavy pots and pans.

Steam-It may be used for all types of food as a complete cooker or as a pre-cooker or blancher. Trays need only be rinsed for cleaning and there is never any problem of burned food or scorching as food particles will not adhere to the surfaces of the pan.

## Emergency Light Can Operate from Battery

KEY NO. A-725

NEW YORK CITY—A "Defense Light" that gives instant, automatic emergency lighting protection has

been introduced by the Electric Cord Co. here.

The "Defense Light" plugs into any 110 volt a.c. wall outlet, according to the manufacturer. If there should be any interruption of the regular lighting circuit, the light will come on instantly and automatically from power supplied by the attached battery.

The light clamps onto a standard Burgess 6 or 7½ volt battery. It supplies a 21 cp. floodlight that will serve for many hours. Head of the light is adjustable in any direction.

**Another KRAMER First!**

## THERMOBANK

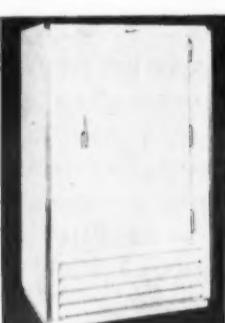
for

**AMMONIA**

For the First Time, a completely automatic ammonia system for freezing temperatures.

WRITE FOR BULLETIN TA 182

**KRAMER TRENTON CO.** TRENTON 5, NEW JERSEY



Self-contained reach-in freezers with solid doors and quadruple glass display doors, -fee maker, blower-coil and dual temperature models.

...dependable refrigeration  
for fast-moving modern  
merchandising

Keeping things cold—reliably over years of trouble-free service—is only part of the HOWARD story. Equally important, these famous units assure maximum display and convenience in handling frozen food merchandise. The full HOWARD line offers a model and a size for every need. They're real profit builders for the modern store, small or large.

**FROZEN FOOD CASES**  
**STORAGE FREEZERS**  
**BEVERAGE COOLERS**  
**OPEN SELF SERVICE CASES**  
**VEGETABLE & DAIRY CASES**

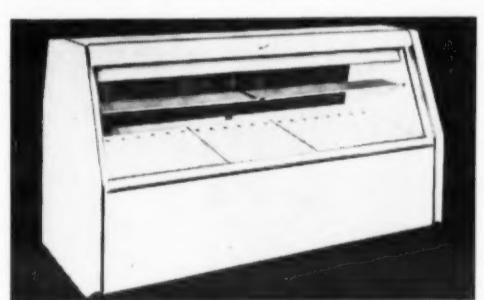
Plus models for Hospitals, Farms,  
Florists and others.

Write for the complete HOWARD catalog-MS.

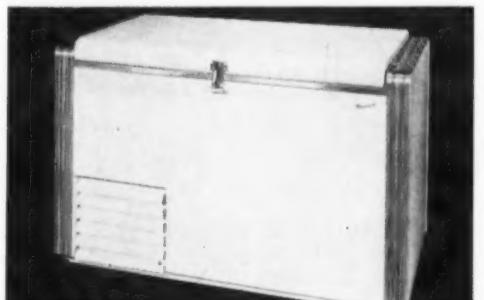
**HOWARD REFRIGERATOR CO., Inc.**  
4800 WORTH ST., PHILADELPHIA 24, PA.



NEW! Open top self-service frozen food or ice cream cases at lowest prices in history. Model M-71 illustrated.



Type P-500 double duty meat display case. 6 to 12 ft. lengths for continuous display lineups.



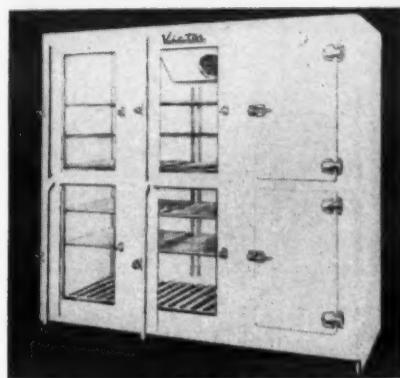
Popular SF Model storage freezers in capacities (8 to 29 cu. ft.) for every need. Hermetically sealed freezing units.

## What's New (Cont.)

### Victor Shows New Line of Commercial Reach-Ins



Model FR-1030G has double Thermopane doors and extra heavy duty adjustable shelves.



Model FR-70 with six doors has a capacity of 64 cu. ft. and a shelf area of 72 sq. ft. This unit is for remote installation only.

condensing unit. Shipping weight of the FR-20 is 650 lbs. and that of the FR-20G is 675 lbs.

The FR-30 and FR-30G have 30 cu. ft. capacity and 32 sq. ft. of shelf area. They measure 54 in. wide, 30 in. deep, and 73½ in. high. Door openings are 20¾ by 44¾ in. Shipping weight of the FR-30 is 840 lbs. The FR-30G is 30 lbs. heavier.

The FR-1030G has the gliding type doors but the same measurements, capacity, and shelf area of the FR-30. Its shipping weight is 825 lbs.

All of the units described thus far are equipped with ¼-hp. self-contained condensing units.

The FR-47 and FR-47G are for remote installation only and are powered by ½-hp. units at extra cost. They have 42 cu. ft. capacity and 48 sq. ft. of shelf area. They measure 54 in. wide, 30 in. deep, and 74¾ in. high. Door openings are 18¾ by 29¾ in. Shipping weight of the FR-47 is 810 lbs. and of the FR-47G, 850 lbs.

FR-70 and FR-70G have 64 cu. ft. capacity and 72 sq. ft. of shelf area. They have the same depth and height as the FR-47 but they are 76½ in. wide.

Door openings are also the same size as on the smaller box. Powered by a ½-hp. remote condensing unit (extra), the FR-70 has a shipping weight of 958 lbs. and the FR-70G, 1,020 lbs.

### Information Center

For more information on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

#### What's New or Current Literature Available

Key No. ....	Key No. ....
Key No. ....	Key No. ....
Key No. ....	Key No. ....
Key No. ....	Key No. ....

**Products Advertised**  
(list name, page, and issue date)

(PLEASE PRINT PLAINLY)

Name ..... Title .....  
Company .....  
Street .....  
City ..... Zone ..... State .....  
Type of Business .....

**MAIL THIS FORM TO**  
**AIR CONDITIONING & REFRIGERATION NEWS**  
**Reader Service Dept.,**  
450 W. FORT ST. DETROIT 26, MICHIGAN

### Ultra-Violet Lamp Detects Small Refrigerant Leaks

KEY NO. A-727

SOUTH PASADENA, Calif.—A portable ultra-violet lamp that will detect minute refrigerant leaks by causing the oil in the refrigerant to glow in the dark or under subdued light has been introduced by Ultra-Violet Products, Inc. here.

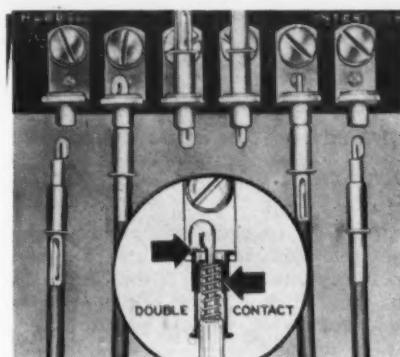
The manufacturer claims that with five minutes of practice, the beginner can locate leaks that are absolutely undetectable with a halide torch.

In examining a refrigerating system for leaks, oil will sometimes be found at several or all surface points, the manufacturer explained. However, points of possible leaks show a relatively more intense glow.

Next step, he said, is to use carbon tetrachloride or any other non-glowing solvent to wash the points of suspected leaks free of oil. The solvent can be applied with a small brush while under the ultra-violet lamp. The solvent washes the glow away, but if there is a leak, glow reappears.

On a leak that can be detected by a halide torch, the glow will reappear almost immediately. Smaller leaks may take from five to 10 seconds for the glow to reappear.

However, the manufacturer points out that this only works with an oil that will glow when exposed to ultraviolet light. Price is \$29.50.



### Harvey Hubbell, Inc. Has New Electronic Connector

KEY NO. A-728

BRIDGEPORT, Conn.—Novel locking and "double contact" are claimed as major features of a new type "Hubbell-Interlock" connector introduced for the electronic and electrical trade by Harvey Hubbell, Inc. here.

The self-locking jack-plug is locked in the terminal by merely inserting the plug in its outlet, the company says. A slight pull on the flanged sleeve of the jack releases the locking mechanism and plug in a single operation, the manufacturer states.

Both frictional contact and "knife-edge" contact are achieved in the design, which also incorporates a 20-oz. spring to assure constant pressure on the contacts.

The connector is rated at 10 amps., 110 volts. Terminals and wiring tools can be supplied to suit all wiring conditions, according to the company.

### Complete Soda Fountain Has 3-Ft. Over-all Length



KEY NO. A-729

BRONX, N. Y.—A complete soda fountain only 3 ft. long has been introduced by Foremost Fountains, Inc. here for smaller restaurants with limited space.

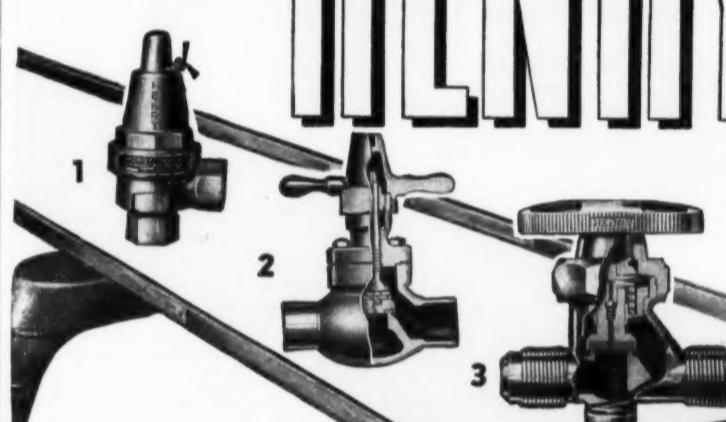
The company claims that the 3-Footer, as the model is called, has the same construction features as the larger Foremost units.

These include stainless steel on all interior and exterior working surfaces, vegetable cork insulation throughout, an instantaneous cooler, a carbonator, compressor, small bottle storage compartment with dry refrigeration, a removable tilting refuse bin, and stainless steel waste chute.

Other features include four syrup jars, three crushed fruit jars, three syrup pumps, heavy duty chocolate pump, running water dipping well.

# HENRY

REALLY GIVES YOU  
SOMETHING EXTRA!



## ADVANCED ENGINEERING

1 RELIEF VALVES diaphragm construction, positive controlled cushion reseating with relief capacity that meets latest code requirements.

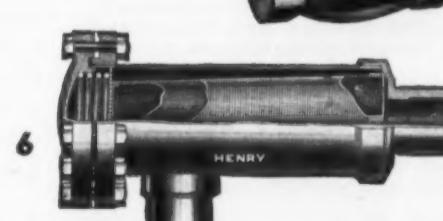
2 WING CAP VALVES greater flow, bolted bonnet and self-aligning stem disc.

3 PACKLESS VALVES still the only Balanced-Action valve on the market—no extra cost.

4 DRIERS forged brass end caps with integral fittings, natural finish, Abso-Dry pressure sealed, dispersion tube and extra capacity.

5 AMMONIA VALVES compact and strong, self-aligning stem disc.

6 STRAINERS forged brass end caps with integral fittings, reinforced screen, large filtering area, distortion-proof clean-out flange.



Sold by  
Leading Wholesalers

**HENRY VALVE CO.**

Valves • Driers • Strainers • Control Devices and Accessories  
for Refrigeration, Air Conditioning and Industrial Applications  
MELROSE PARK, ILL. (CHICAGO SUBURB)  
CABLE: HEVALCO, MELROSE PARK, ILLINOIS

# Supermarket Air Conditioning Proves Good Business

## 1. For Seller: One Installation Sells Another For Boston Cooling Contractor

BOSTON — Supermarkets have proved good air conditioning prospects for the E. A. Berman Co., Airtemp and Worthington distributor here, according to M. L. Cail of the contracting firm.

Just recently Berman installed a complete air conditioning, heating, and ventilating system for the new Stop & Shop Supermarket located in Brighton. Engineered by William H. Krapohl, the system employs a 50-hp. Worthington 4HF6 unit for air conditioning. The shopping area in the new market is approximately 14,000 sq. ft. in area.

"A very interesting point to be noted was that on opening day the outside temperature was 91° F.," Cail says. "In my visit to the store on this particular day I noted that the temperature on the inside was 71° and that there were well over 500 people in the shopping area. I would say that our compressor was certainly doing a top-notch job of air conditioning the store, even though the differential in temperature was much too large."

Stop & Shop, incidentally, is one of the largest independent chains in New England, operating more than 100 supermarkets.

Another market air conditioning job just completed by the Berman company involved a 30-hp. unit for the United Public Market outlet in Woonsocket, R. I. This system is designed to serve the 8,000 sq. ft. of shopping space in the market.

Two years ago Berman had air conditioned the United store in Providence, which is twice as large, with a 60-hp. Worthington system. This market is still the largest in Rhode Island, and, according to Cail, "is considered the most advanced in the structural design of the building, which was handled by Samuel Lerner & Associates, architects."

Although not for markets, two other interesting air conditioning jobs being handled by the Berman organization include four floors for County Bank & Trust Co. in Cambridge, Mass., and a defense contract for Raytheon Mfg. Co. in Waltham, Mass.

The trust company installation involves a 40-hp. Worthington compressor, two air-handling units, a 7½-hp. packaged conditioner, and a 60-ton cooling tower.

For Raytheon the installation will consist of a 50-hp. compressor, air units, and an evaporative condenser.



## 2. For User: It Gives Sagging Summer Sales A Shot-In-The-Arm at Shopwell

NEW YORK CITY — Facts and figures definitely proving that air conditioning gives a shot-in-the-arm to a supermarket's sagging summer sales have led Shopwell Foods, Inc. to contract for installations in all its 14 stores in Westchester county.

Like the initial installation, which was somewhat of an experiment for the independent chain, all the jobs were sold by Kadar Air Conditioning Co., Typhoon dealership in New York City operated by Mike Davidson and Sid Kahn.

The three 5-ton package units that comprised the first installation "drew customers into the store with the pull of a juke box gathering bobby-soxers to an ice cream parlor," the operators said.

Not only did shoppers linger longer in the market but they bought more on each visit. This was evidenced by comparing the sales figures for the test market before and after air conditioning.

Sales jumped 47.3% for the months of July, August, and September after air conditioning was installed, compared with the same three months of the preceding year. Even the months of October, November, and December gained 21.3% and while January, February, and March were up 24.2%.

"It is my opinion," declares Louis H. Taxin, president of Shopwell Foods, "that the reason for the increase in business during the months beginning October as compared to the same months in the previous year is due to the fact that we gained many new customers during the hot days when these customers enjoyed the comfort of our market."

"Once we were able to attract them to our market with air conditioning, we were able to make regular customers out of them and that carried through for the rest of the year. In my opinion that is the most important advantage of air conditioning in a food market."

"You know very well that supermarket operators spend heavily on advertising in order to attract customers to their markets. No amount of paid advertising or other sales promotion can do so effective a job in winning new customers and building goodwill as air conditioning."

"Further, with regard to sales figures, it must be stated that we experienced a general increase in all our other markets where we had no air conditioning, so that the entire increase in sales should not be attributed to the installation of air conditioning."

"Our average increase in sales during the nine months reported in all our other markets approximated 12%. You can readily see," Taxin points out, however, "how much greater the percentage of increase in sales was over and above this 12% in the market in which air conditioning was installed."

"As for the cost of operation of

air conditioning, our charges for additional water and electric consumption during the summer of 1948 amounted to about \$650. In my opinion this is cheap advertising. I am not taking into consideration the initial capital investment. That is something for each operator to decide for himself," Taxin says.

Store management cited several advantages for air conditioning in general and packaged units in particular.

"A hot day in New York has a way of wilting everything and everybody—our packaged dried fruits, vegetables, and fruits, meats, dairy products, and the personnel and the customers—and worse, the cash registers themselves seem to wilt."

"But pour in a nice, cool, breeze from a packaged air conditioner that feels like it came from under a shady country tree and everything in the market perks up. Fruits and vegetables crisp up, the personnel looks fresh, and the customers buy as if they are going on a picnic."

"Simplicity of installation as well as the savings in initial costs and ease of maintenance made package type conditioners Shopwell's answer to declining summer sales."

## IT PAYS TO KNOW! REFRIGERATION AIR CONDITIONING INFORMATION IN A HANDY FORM

Every Serviceman, Mechanic & Operator can use AUDELS REFRIGERATION & AIR CONDITIONING GUIDE, containing Practical Inside Trade Information on the whole subject of Refrigeration & Air Conditioning. Tells How to Service, Operate & Repair Modern Household, Commercial & Industrial Units & Air Conditioning Systems. 1242 Pages, 46 Chapters Fully Illustrated and Indexed for Quick Reference.



### 1001 FACTS

This big, highly endorsed book, easy to understand, gives Basic Principles on How to Repair & Install Compressors & CONTROL DEVICES How to locate Electric Motor Troubles. How to Service & Adjust Cold Storage Lockers, Quick Freezing Units, Dairy & Market Refrigerators, Ice Cream & Soda Fountains, How to Maintain Water Coolers, Marine Refrigeration, Plant Auxiliaries, Ice Making, Ammonia Plants, Brine Systems, Servicing Air Conditioning Systems. Replacement of Refrigerants including Freons. Heat Transmission & Pressure Temperature Charts, Tables, Duct Systems, Safety Code, etc.

**ANSWERS YOUR QUESTIONS**  
Get this Handy Information for Yourself.  
**\$4** MAIL TODAY.

**AUDEL Publishers, 49 W. 23 St., N.Y. 10**  
MAIL AUDELS NEW REFRIGERATION GUIDE for free examination. If O. K. send \$4.00 plus \$1.75 for postage; then remit \$1 monthly until price of \$4 is paid. Otherwise I will return it.  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
Occupation \_\_\_\_\_  
Employed by \_\_\_\_\_

R-12

## TYPHOON

Most Complete Line of  
**AIR CONDITIONERS**  
in the most popular size range  
**1½ TO 20 TONS**

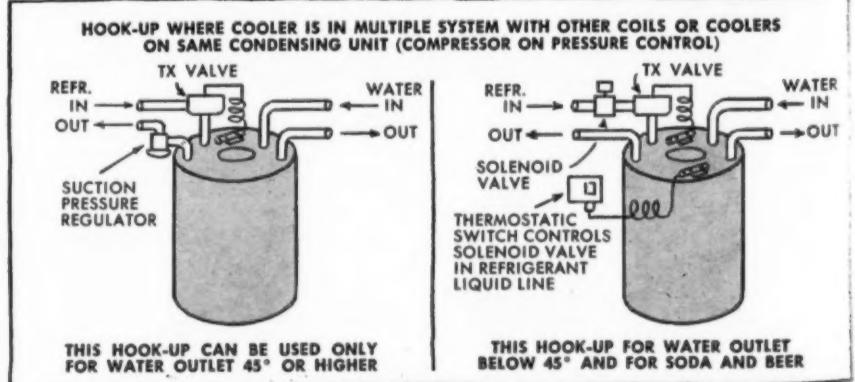
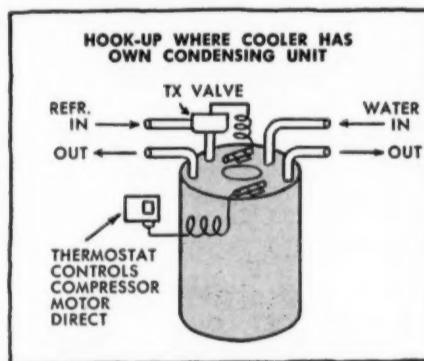
Evaporative Condensers  
**3 TO 20 TONS**

Backed by more than 40 years  
of air cooling experience  
**TYPHOON** Air Conditioning Co., Inc.  
794 Union Street, Brooklyn, N.Y.



## EASY DOES IT. WITH heat-x LIQUID COOLERS

Simplified construction makes Heat-X Liquid Coolers easy to install and easy to service. Separate liquid and refrigerant coils are cast within single aluminum block . . . positive insurance against freeze-up damage. No oil separator or surge drum necessary. Single and multiple hookups illustrated below.



THIS HOOK-UP CAN BE USED ONLY FOR WATER OUTLET 45° OR HIGHER

THIS HOOK-UP FOR WATER OUTLET BELOW 45° AND FOR SODA AND BEER



WRITE DEPT. ED FOR SPECIFICATION SHEETS

## While Baby Wails, Mother Watches Film from Theater's Air Cooled, Soundproof 'Cry Room'

ASHLAND CITY, Tenn.—Sole source of air for the "cry room" in the local theater operated by Robert J. LaCrosse is a 1-ton window type air conditioner installed by the Lee Refrigeration Co. located in Nashville.

The "cry room" is a small, soundproof, glassed-in room in the center and to one side of the main auditorium.

When baby starts to cry, mother carries him to the "cry room" where he can wail to his heart's content without disturbing other patrons and she can continue to watch the picture.

To provide ventilation for this com-

paratively airtight space, the Lee firm had to cut a hole just the size of a Frigidaire ARM-100 air conditioning unit through a 6-in. concrete wall.

The unit, which was found to provide the required amount of air at the correct temperature, was placed in the opening.

Robert H. Lee, sales manager of Lee Refrigeration Co., thought that this idea was very creative on the theater owner's part. He says that the idea has proved to be a wonderful success as the installation was made even before theaters in larger cities adopted the same type of air conditioning scheme.



## ANSUL REFRIGERATION OIL

THE NEW... IMPROVED... ANSUL REFRIGERATION OIL... IS A RESULT OF THE PERSISTENT SEARCH BY ANSUL CHEMISTS AND REFRIGERATION TECHNICIANS FOR THE FINEST QUALITY REFRIGERATION OIL... AT ANY PRICE!

Since Ansul Refrigeration Oil was introduced in 1949... its acceptance by refrigeration men has continued to expand. In only two short years Ansul is one of the leading refrigeration oils sold exclusively through Refrigeration Wholesalers.

The New... Improved Ansul Refrigeration Oil is now available at leading refrigeration wholesalers everywhere. It meets, or surpasses, every specification established by Ansul Research for a high quality refrigeration oil.

BUY IT NOW AT THE NEW LOW PRICE. Use it for more dependable, trouble-free lubrication.



**WE WILL BUY!  
AIR CONDITIONING  
UNITS  
1/2 hp or Larger**

ANY QUANTITIES • MUST BE NEW  
Write, Phone Or Call For  
IMMEDIATE ACTION  
**TRACO Industrial Corp.**  
455 W. 19 St., N.Y. 19, WAtkins 4-4302  
(Send for Traco's complete list  
of sensational bargains)

**THE HEAT-X-CHANGER CO., INC.**  
BREWSTER, NEW YORK



# Servicing Hermetics In the Field

This is another in the new series of articles written to show the average serviceman how to service hermetic units in the field. Even those who have been working on hermetics for some time will find basic and practical information in these articles that will prove extremely helpful.

## High Humidity Systems Present Some Special Problems

By Arne Pertolla, Owner and Manager  
Brighton Hermetic Service, Detroit

Servicemen who've had no experience on refrigerators having high humidity compartments may have difficulties in diagnosing problems on these boxes, particularly if the trouble involves the high humidity storage compartment. They may be surprised to find the lower shelves getting cold when the shelves are of glass and are sealed off from the evaporator.

And servicemen who notice a very distinct odor of sulphur dioxide inside the cabinet and in the room will blink and look twice when they see that the nameplate on the unit very clearly states that the system is charged with "Freon." Where, they want to know, is the sulphur coming from?

The sulphur is coming from the secondary refrigeration system which cools the storage compartment of this type of refrigerator—which servicemen usually refer to as a "cool-wall" box.

### SECONDARY SYSTEM USED

Main refrigerator unit construction is the same in this type of system as in the standard type of refrigerator. However, there is also a separate "secondary" system. This consists of tubing soldered to the liner of the refrigerator and fastened in contact with the evaporator at its upper end.

There is no direct connection between this secondary system and the regular hermetic system in this type of construction. Heat, but not refrigerant, is transferred through the walls of the secondary system tubing to the evaporator.

Sealed in the tubing of the secondary system is a refrigerant or brine. Sometimes the same refrigerant used in the main system is used in the secondary tubing. Or it may be a different refrigerant, such as sulphur dioxide, or a brine.

In operation, when the evaporator gets cold it cools the refrigerant sealed in the secondary system because the upper part of this system is in direct contact with the evaporator. As the refrigerant in the secondary system gets cold it condenses and flows down into the lower part of the tubing where it evaporates, thus cooling the liner in the lower part of the cabinet.

If brine is used in the secondary circuit instead of refrigerant, the

brine cooled by the evaporator would flow to the bottom of the tubing by gravity as the warmer brine rises in the other leg of the secondary circuit.

Leaking of the charge in the secondary circuit, whether it is refrigerant or brine, will cause the temperature of the high humidity compartment to rise. Regardless of how cold the evaporator may get, the temperature in the lower section will not go down accordingly.

It becomes necessary then to replace the charge in the secondary system, after first locating and repairing the leak. Holes may have been jabbed in tubing of the secondary circuit (and the evaporator, too) with an ice-pick by misguided users.

"High humidity" systems charged with brine usually have a small tank behind the evaporator buried in the insulation of the cabinet. No tank is used when a refrigerant such as sulphur is employed in the secondary system. To recharge with brine, hold a small container or bottle of brine so that the tube coming out of the top of the brine tank is in the brine in the bottle.

Apply heat to the liner. Then start the unit. As the evaporator cools, brine will be drawn from the bottle into the brine tank.

To recharge a secondary system using refrigerant, it will be necessary to solder a  $\frac{3}{16}$  in. tube into the circuit. Connect the refrigerant cylinder to the  $\frac{3}{16}$  in. tube in the usual way. Hold the drum upside down to get liquid refrigerant into the secondary system then pinch off the tube.

### TWO-TEMPERATURE DESIGN

Not all refrigerators providing a moist-cold compartment by means of a refrigerated liner use the closed secondary circuit as outlined above. Some are designed as two-temperature systems with a pressure-differential valve or check valve in the low side between the evaporator in the low temperature compartment and the tubing that cools the liner.

In this type of refrigerator the circuit cooling the liner is a part of the refrigerating circuit instead of being entirely separate as in the secondary system.

The refrigerant enters the normal temperature part of the system first, but it cannot leave until the pressure builds up high enough to open a pressure check valve or differential valve. This valve is a large needle-and-seat assembly with a spring behind the needle. The spring has sufficient tension so the valve won't open until a pressure difference of 10 to 15 lbs. has been reached.

The pressure in the liner evaporator will be 10 to 15 lbs. higher in the lower temperature compartment at all times. As the pressure in the low temperature evaporator is lowered, the pressure in the liner evaporator will drop accordingly.

Sometimes the check valve will remain in an open position. This will permit the system to cycle normally and cool the main food compartment but the low temperature compartment will not be cold enough.

On the other hand, if the check valve becomes stuck in the closed position, or if the pressure differential becomes too great, the unit will continue to run, pulling the temperature of the freezer compartment well below 0° F., perhaps down to -20° or -30°, but the food compartment will not get cold enough.

Solution to this problem is to replace the check valve. This is not difficult since the valve is flared into the system rather than brazed. Refrigerators using this hookup are equipped with service valves so the system can be shut down and recharged after replacing the check valve.



## MOBILE MIDGET

### 'Kiddie Kar' Holds Several Gross of Frozen Specialties And Plays Recorded Children's Music and Nursery Tunes

DENVER—Specialty refrigeration and electronics have been combined for a novel type of "rolling store" by Steffens Garden Farm Dairy here.

The unit is a Crosley delivery truck, which patrols the area around Denver elementary schools through the day, selling ice cream bars and other frozen items to youngsters. Called the "Kiddie Car," the mobile midget is enameled a refrigerator white, with brilliant red and blue lettering, plus cartoons, over its surface.

A  $\frac{1}{4}$ -hp. condensing unit, mounted at the rear, provides -10° temperature for the load of ice cream specialties carried in the panel body.

Insulated with 2 in. of "Dry Zero," the refrigerated space can be reached either from the rear or through a sliding door immediately behind the driver. Several gross of small frozen specialties may be easily carried.

Refrigeration is built up overnight by plugging in power for the condenser at the Steffens plant. Low temperature is maintained through an average six hours of selling time through effective insulation.

Mounted beneath the dash is a wire recorder and amplifier unit,

with speakers below the chassis. As the Kiddie Car moves slowly around the school yards, recorded children's tunes and novelties are played to attract attention.

Many of the smaller schools declare a recess when the tinkling music of a xylophone or Mother Goose tunes are heard, to allow the children to make purchases.

### Small Business Experts To Serve Procurement Offices

WASHINGTON, D. C.—The Army has announced appointment of full-time small business specialists who will be stationed in the various procurement offices of Ordnance, Engineers, Quartermaster, Chemical, Signal, and Transportation Corps, and Medical Service, and Army installations with procurement authority.

### JUST ASK US!

Turn to "What's New" Page for useful information on new products.

### Sealed Unit Parts Co. Names Atlanta Sales Representative

NEW YORK CITY—Thomas H. "Red" Hart, president of Hart Engineering & Sales Co., Atlanta, has been appointed sales representative for Sealed Unit Parts Co., Inc., it was announced by Sidney Weiner, secretary of the firm.

Hart will cover the southeastern area of the United States.

### Atlanta Distributor Holds Formal Opening of Building

ATLANTA—Yancey Co., distributor of air conditioning units, refrigerators, and appliances, recently held formal opening of its new office and warehouse building at 1500 Northside Drive, N. W.

The firm is headed by B. Earle Yancey, president; Jack Yancey and Mitchell Edwards, vice presidents; B. Earle Yancey, Jr., secretary-treasurer; and H. H. Blevins, sales mgr.

### WE WILL BUY!

#### SURPLUS

#### REFRIGERATION CONTROLS

#### PRESSURE and THERMOSTATIC

ANY QUANTITIES • MUST BE NEW

Write, Phone Or Call For IMMEDIATE ACTION

TRACO Industrial Corp.

455 W. 19 St., N. Y. 19, WAtkins 4-4302

(Send for Traco's complete list of sensational bargains)



## CONDENSING UNITS AND RENEWAL PARTS



## Here's how G.E.'s thin valve plate cuts operating costs

A crucial spot where compressor capacity can be lost is in the gas passages of the valve plate. In a thick valve plate a large amount of refrigerant gas will remain after each compression stroke. On the next stroke, the piston must compress all this gas again, wasting energy and increasing power costs.

General Electric's valve plate—machined with exacting precision and constructed of high-grade spring steel—is so thin that there is very little

space in which gas can remain, yet the passages are wide enough to keep gas friction low. Compressor efficiency stays high and operating cost is cut.

There is added efficiency in the quick, sure action of the valves which peel open like an orange along the curved contour of the valve retainer. The peeling action produced by this retainer promotes long valve life by eliminating valve slap.

You can put your confidence in—

**GENERAL ELECTRIC**

### FREE! DATA ON G-E SEALED AND OPEN UNITS

General Electric Company  
Air Conditioning Dept., Sec. AC-12, Bloomfield, N. J.

Please send me literature on:

G-E Hermetics  G-E Open Units  G-E Renewal Parts   
I am a Service Engineer  Dealer  Manufacturer  Contractor

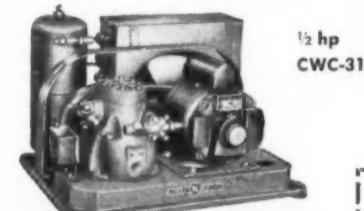
NAME.....

COMPANY.....

ADDRESS.....

CITY.....

ZONE..... STATE.....



G-E Open Type Condensing Units,  
1/4-10 hp. G-E Sealed Units, 1/4-1/2 hp.  
G-E Compressor Bodies, 1/4-10 hp.

## DRIFREEZ

Reg. U. S. Pat. Off.

Outperforms All Dehydrators by Test  
Never Stores Water  
Removes to 1 1/2 oz. Physically Neutralizes All Acidity  
Prevents Corrosion and Plating Perfectly Filtered Units Never Require Baking By Vacuum  
**SAVES ENDLESS SERVICE CALLS**  
Tested for Safety by Engineering Laboratory



SEND FOR BROCHURE

**ERNA CORP.**  
RICHMOND HILL 18, N. Y.

**Cuts Inventory Losses****Accessories to Packaged Unit Provide Right Conditions for Paper in Photo Supply Store**

Interior of the Acme Photo Supply store in Lima, Ohio, where printing paper inventory problems have been solved by the installation of a 5-ton Typhoon packaged air conditioner (right rear). Deep five-row coil keeps relative humidity low in summer, while spray humidifier supplies needed moisture during the winter months.

LIMA, Ohio—By preventing deterioration of the sensitized printing paper that constitutes a large percentage of sales at the new Acme Photo Supply Co. store here, air conditioning saves the firm many dollars in inventory losses, the management has reported.

This paper is dated by the manufacturer and must be destroyed or sold at greatly reduced prices after the stamped date, it was explained. This calls for a very close control of inventory, since it is equally important not to run out of paper by keeping inventories too low.

The owner's experience in a previous store, which was not air conditioned, was that outdated paper had practically no value, and could even be costly. When sold at reduced prices, it would often be returned for refund by customers, resulting in bad feelings on their part and a complete loss of the paper's original value to the store.

With temperature and humidity now controlled winter and summer by a Typhoon 5-ton packaged air conditioning unit equipped with a heating coil, the paper remains in good condition even after the expiration date.

Although it still must be sold below the regular price, refunds have

been almost entirely eliminated. This enables the owner to maintain larger inventories without fear of serious loss and to boost sales by virtue of his wider selection at all times.

A relative humidity of 50% is maintained year-round—by the deep cooling coil which provides the necessary dehumidifying effect in summer, and in winter by a spray humidifier, solenoid valve, and humidistat. The heating coil in the unit is controlled by a modulating steam valve and a modulating thermostat.

Because of the large area of single glass display window across the front of the store, finned tube radiation was installed beneath the window to boost heat at the front of the store. It also serves to keep display windows from fogging due to the high internal relative humidity during cold winter months.

The air conditioner has been painted to blend in with the store interior, which includes harmonizing pastel walls, limed oak showcases, fluorescent lighting, and Hollywood spotlights. The side grille is used to cool a small, semi-enclosed office at the rear of the store.

The store opened about Jan. 1, 1951. Komminsk Refrigeration, local Typhoon dealer, was responsible for the installation.

**pressure-lubricated compressors NEED THIS Automatic Protection!**

Low oil pressure can develop even in the best pressure-lubricated compressors. But damage to seals and bearings resulting from such a condition can be prevented with the PENN Series 275 Oil Protection Control!

Here's how this low-cost control works. When compressor starts, if oil pressure does not build up to proper point within a safe time period, the Series 275 stops the compressor automatically. During the running cycle, if oil pressure drops below a safe minimum... and does not return to normal within a safe time period... the control shuts off compressor operation. Thus, the compressor is protected automatically at all times!

Learn more about the Series 275... ask your wholesaler or write Penn Electric Switch Co., Goshen, Indiana. Export Division: 13 E. 40th Street, New York 16, N.Y., U.S.A. In Canada: Penn Controls Limited, Toronto, Ont.

**PENN**  
AUTOMATIC CONTROLS  
FOR HEATING, REFRIGERATION, AIR CONDITIONING, PUMPS, AIR COMPRESSORS, ENGINES, GAS RANGES

MANUFACTURERS OF THE ORIGINAL CROSS-FIN COIL — HUMI-TEMP UNITS — EVAPORATIVE AND AIR COOLED CONDENSERS — AIR CONDITIONING UNITS AND COILS — DIRECT EXPANSION WATER COOLERS — STEEL VACUUM PLATE COILS — HEAT EXCHANGERS.

WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS  
10 MEMORIAL DR. S.E. • ATLANTA, GA.

**Current Literature Available**

To obtain further information on the literature listed below, please refer to key number preceding listing. Please use the "Information Center" form on "What's New" page.

**Broadside Outlines Way To More Freezer Sales**

KEY NO. M-720

MILWAUKEE—"Who says you can't sell more freezers?"

That provocative question lures dealers into a full-color broadside describing the Ben-Hur Mfg. Co. Freez-R-Pak kit recently issued by the company.

The kit is being offered to every purchaser of a new Ben-Hur home freezer. It has a retail value of \$39.25 and sells to dealers with any model Ben-Hur freezer for \$7.

It contains an ice cube maker, food blancher, two dozen Freez-tainers, 100-ft. roll of locker paper, 15 pint and 12 quart size packages, 36 polyethylene bags, a 36-yd. roll of tape, an automatic marking pencil with a dozen refills, and a plastic defroster paddle.

**How Air Conditioning Aids Businesses Outlined**

KEY NO. M-721

BOSTON—An illustrated, 12-page booklet that describes the benefits of air conditioning in almost any type of installation is available through Westinghouse Electric Corp.

Keynote of the booklet (B-5158) is: "An investment you can't afford to be without." From there it points up, one after the other, the benefits of air conditioning.

**Hotpoint Manual Compares L-P Gas, Electric Units**

KEY NO. M-722

CHICAGO—Supplementing special sales programs on all-electric kitchens and planned laundries through dealers, department and furniture stores, and builders, Hotpoint, Inc. is taking the second phase of a utility revenue building program to the management of leading electric companies, Edward R. Taylor, vice president, announced.

Recognizing that inroads are being made in potential electric appliance markets by bottled gas appliances, the company's utility division has completed an exhaustive study of the merits of each appliance.

The study is presented in a manual developed for retail salesmen. It can also be used for training new salesmen, and refreshing veteran sales corps.

The new sales aid goes into detail in explaining the advantages of safe-

**LOOK TO LARKIN****For Efficiency****LARKIN HALF-TURRET HUMI-TEMP**

Efficient operation makes a product easier to sell on one hand; builds solid customer satisfaction on the other. Precision engineering—only the best materials—skilled craftsmanship—and almost 25 years experience in commercial and industrial refrigeration—all add up to higher efficiency for every Larkin product. And this means lower operating costs—important to buyer and seller alike.

Manufacturers of the original Cross-Fin Coil — Humi-Temp Units — Evaporative and Air Cooled Condensers — Air Conditioning Units and Coils — Direct Expansion Water Coolers — Steel Vacuum Plate Coils — Heat Exchangers.

LARKIN COILS  
10 MEMORIAL DR. S.E. • ATLANTA, GA.

**'Successful Meat Curing' Book Offered by Koch**

KEY NO. M-725

KANSAS, Mo.—A new booklet entitled "Successful Meat Curing" has been recently published by Koch Brothers here for use in the trade.

Text and tables in the book are entirely new, according to Ray Miller, Koch advertising manager, and are based on authoritative publications and the wide experience of the Koch engineering staff.

Directions are given for curing ham, bacon, corned beef, and sausages.

Tables on salt brines and how to mix them are computed from the latest experimental data. This information is tabulated on the strengths commonly used in processing foods. By using these tables Miller said, it becomes much easier to mix brine, and the chances of error through careless calculation are eliminated.

Price of the booklet is 25 cents.

**92-Page Catalog Ready On Allen-Bradley Controls**

KEY NO. M-726

MILWAUKEE—A new edition of the Allen-Bradley Handy Catalog on motor controls was announced recently by the Allen-Bradley Co. here.

This illustrated catalog, now in its fifth edition, contains 92 pages of condensed information, dimensions, and prices of the more popular items in the Allen-Bradley line.

In addition to the usual index page on A-B motor controls, the new catalog contains a special A-C and D-C index along the margins of each page for ready reference.

**All-State Publishes Folder To Aid Buyers**

KEY NO. M-727

WHITE PLAINS, N. Y.—A new four-page folder, just published, is devoted to purchasing data on All-State welding, brazing, soldering, cutting and tinning alloys, as well as fluxes.

All details that a buyer or purchasing agent must know to make proper selection and enter his order are covered, according to All-State Welding Alloys Co., Inc., here.

**Now 3 ROOMS WITH 3 DIFFERENT TEMPERATURES in ONE!**

- ECONOMICAL
- PRACTICAL
- ADVANCE DESIGN

A woman stands next to the cooler, pointing at it.

NOW... the manufacturers of famous 'Kold-Draft products present the

**\*UNIFLOW Walk-in Coolers**

\* Standard Temperature Coolers

\* Multi-Temp Coolers

\* Walk-In Freezers

TWO or three rooms with two or three different temperatures from -20° +40°; or whatever temperatures your customer needs!

UNIFLOW'S Multi-Temp Walk-in Cooler is practical and economical to install and operate. It requires only one condensing

\* Trademark Reg. U. S. Pat. Off.

**KOLD - DRAFT DIVISION**

UNIFLOW MANUFACTURING CO., ERIE, PENNSYLVANIA

KOLD-DRAFT KWIK-SERVERS KOLD-DRAFT KLUB MODELS KOLD-DRAFT "ELECTRIC-ICE" WATER COOLERS

KOLD-DRAFT BEVERAGE COOLERS KOLD-DRAFT CONSOLE CONVERTORS KOLD-DRAFT KUBE-SERVERS

# Refrigeration Servicing

**Domke, of Mueller Brass, Demonstrates Soldering Techniques, Discusses Installation, Servicing Problems for RSES**

DETROIT—Suggestions on soldering techniques backed up by actual demonstrations were presented before the Greater Detroit RSES chapter by Paul Domke of Mueller Brass Co. along with pertinent points on other phases of refrigeration installation and servicing.

"In soldering," Domke reminded the group, "there are three basic rules to remember: (1) you must have proper tolerance of the tube and fittings; (2) you must clean them properly; and (3) you must have proper heating."

"The tolerances should be close enough to hold the fittings nicely, but the serviceman has no control over the tolerance."

It's something he should be aware of and watch for, however, Domke implied.

"Don't use 50-50 solder in refrigeration," he also warned. "Carbon dioxide attacks the lead in 50-50 solder, causing it to deteriorate and powder. And there's lots of CO<sub>2</sub> around a refrigerator due to decaying food."

"With Silfos you don't need to clean the tube and fittings, but with other solders you have to clean them properly. Although Greenstreet cleans quickly, you have to have enough to prevent oxidation during the soldering operation. Usually some gets into the system, which isn't good."

"I'd suggest you use sandpaper to clean the outside of the tube and a wire brush of the right size to clean the inside of the fittings. Turn the brush to the right only—clockwise—and you won't break the bristles."

"Be sure to use flux and stir it well to mix the chlorides with the petroleum grease. The chlorides usually collect at the bottom of the can. Apply the flux with a brush, covering the parts thoroughly but sparingly," he advised. "Excess flux should be wiped off to make a neat joint."

The solder should be applied right at the joint so that capillary action can flow around it evenly. As a rule of thumb, use one half the diameter of the fitting to determine the right amount of soft solder. In

other words, if it's a ½-in. dia. fitting use ¼-in. of wire solder.

"Apply the tip of the cone of the soldering torch's flame to the point where you think the end of the tube is. Don't hold soft solder at the joint while you're playing the flame on it. Heat the joint first then apply the solder."

Cleaning the parts is just as important with silver solder, and it's especially important to apply the heat evenly, he cautioned.

"Don't have too sharp a flame, and roll around the joint."

The flame should be trained away from the valve body in soldering a shut-off valve in the line, Domke added. Valves of ½-in. sizes and larger should be dismantled before soldering.

He warned, too, against putting too much heat to the joint in silver soldering. Copper begins to yield at 1,600° F., so the temperature should be kept well below that point.

## Uses Glass Evaporators

Domke's talk covered other phases of refrigeration work, some of which he demonstrated by means of an operating two-temperature system having two glass evaporators.

"We've heard a lot of complaints and discussion about the filter element in driers," he said. "In days past we have been criticized for putting a felt pad in the outlet of a drier. They said it clogged up."

"This filter served to take out sludge that would otherwise get into the system. Without the filter, sludge in the system would first impair the operation of the expansion valve. Particles of sludge would prevent the valve from closing, causing it to 'hunt'. This would mean additional running time."

"For a good refrigeration installation, the system must be kept clean. Latest designs of filters provide a cone-shaped screen, too, to keep residue from getting into the system. The cone shape forces the particles to the side, leaving the center free for the valve to pass through."

The desirability of using lamb's wool for the filter element was

touched upon by Domke in this discussion, also.

"The suggestion has been made that lamb's wool shouldn't be used, but actually it's okay if it's properly degreased."

## Location of Drier

"Location of the drier is another problem that causes a lot of discussion. We believe the ideal location is between the heat exchanger and the expansion valve. This location usually results in the drier being at a temperature of about 50° F., which is ideal for silica gel."

"A cold location is best with silica gel. With Drierite the location doesn't matter too much."

"Too cold a location is not advisable," Domke warned. "If it's too cold it will mean that the drier will fill up with liquid. If the system is shut down for servicing, there'll be no place for the refrigerant in the drier to go. If the drier warms up under these conditions, something is going to happen."

He suggested, in addition, that it's all right to have the refrigerant enter the drier at the bottom and go out the top.

"It's a mistake to think that coming in at the bottom will cause attrition and grinding. The dusting condition was caused by desiccant manufacturers," he declared.

"During World War II the armed forces took the best grade of silica gel, leaving the second grade for the refrigeration industry. There was a dusting problem as a result. Now the dusting problem is taken care of at the factory, where silica gel is put through large tumbling machines to remove such particles."

## Filling Refillable Driers

"Incidentally, when filling refillable driers, the first thing to do after filling the drier is to put the cover on the can of desiccant, then seal the drier. The large opening on the can will permit the desiccant to collect moisture very rapidly, so the cover should be put back on immediately."

"Otherwise, the second or third time you use the desiccant from this can, it may be full of moisture before it gets into the drier. The small hole in the drier doesn't allow it to collect moisture from the air as rapidly."

Domke told the servicemen that they could use 12 cu. in. of desiccant per horsepower as a good rule of thumb in determining how big a drier to put on a system.

"If I were servicing in the field and had a job that required frequent replacing of the drier, I'd put on a cartridge type refillable drier," he added. "The cartridge can be easily and quickly replaced with a new one that comes in a sealed can."

## Liquid Indicator Location

"Location of a liquid indicator in a system, especially in relation to the drier, is important, too," he declared. "A liquid indicator installed after the drier could lead to a lot of trouble."

"Suppose the drier were clogged. Inexperienced servicemen checking a liquid indicator installed after the drier would in this case think the system was short of refrigerant. He would probably add refrigerant even though the system were fully charged because of the bubbles showing in the sight glass after the clogged drier. Conceivably he might continue adding refrigerant until he reached or passed the danger point without making any changes in the bubbles."

"Don't use driers designed for sulphur dioxide systems on jobs containing methyl chloride," Domke advised. "Driers for sulphur systems often have zinc moss in them to neutralize acids. If put on a methyl chloride system, the zinc would react with methyl in the presence of moisture the same way aluminum does, forming a dangerous mixture."

Advantages of using heat exchangers in systems ("which give the customer something for nothing and help in evening out the capacity of systems"), and details of Mueller's two-temperature valve and purger were also outlined for the group by Domke.

## La Crosse Vacation July 9

LA CROSSE, Wis.—La Crosse Cooler Co. officials have announced the annual plant-wide vacation will take place July 9 through July 15.

Dealers who anticipate ordering equipment are urged to place orders for shipment prior to July 8 as only a small crew will be working to take care of rush orders during the vacation period.

Normal operations will be resumed Monday, July 16.

## Trion Appoints Firm for India

MCKEES ROCKS, Pa.—Trion, Inc. here has announced the appointment of Universal Refrigeration Co., Ltd., Calcutta, India, to handle the sales and service of Trion air filtering equipment for all of India.

# SLANTS on Service

## Don't Lose Small Parts; Put Them In Labeled Cans

One way to keep from losing nuts, screws, and other small parts when taking apart an appliance is to put them all in an empty tobacco can. Paste a gummed label on the can identifying the contents and the customer's name and address. This will prevent the parts from getting lost and makes sure they go back on the right appliance.

## Perma-gum Repairs Gaskets In Drinking Water Coolers

Rubber gaskets beneath the basins of drinking water coolers sometimes become brittle and cracked with age. This permits water to drip on the water tank and it may get into the thermostat, grounding it.

If new gaskets aren't available, perma-gum may be used to seal the old gasket.

## Small Bottles Fit In Tool Kit

Some servicemen have found that the small finger nail polish bottles discarded by their wives make excellent containers for cement, polish, scratch remover, etc., and fit nicely in a crowded tool kit. Bottles should be cleaned out with lacquer thinner to remove the remains of finger nail polish before being filled from the larger stocks kept in the shop.

## Lubricant for Hinges, Etc.

Adding graphite to vaseline to make a stiff paste makes a handy lubricant for hinges, drawer slides, and numerous other applications.

## Notch In Point File Aids Repair of Control

Checking of refrigerator controls can be simplified if a notch is cut in the handle of a point file. This permits hooking and removing the spring so the contact arc may be taken out.

# RIGHT DOWN THE LINE

There are "specific-fit" replacement units for more than one thousand different refrigerator models in the Cutler-Hammer Line



Busy service men are standardizing on Cutler-Hammer replacement controls. No "modify-ing," no fussing, no delays when you answer service calls with C-H "specific-fit" replacement control units. You take out the old, put in the new . . . and you are through! It's the easy, sure way to do the job right because Cutler-Hammer has manufactured such "specific-fit" units for more than 1,000 models of refrigerators built since 1925. And you'll also quickly see how the widely-known Cutler-Hammer name (advertised in The Saturday Evening Post, Time, Newsweek, American Home, Better Homes & Gardens, House & Garden, etc.) builds customer confidence and good will. The C-H refrigeration control catalog, as well as the items you need, are available through your authorized C-H refrigeration wholesaler. Do not forget, this C-H refrigeration control line includes the popular general purpose two-button replacement unit (Type 9502) which incorporates dependable motor overload protection. CUTLER-HAMMER, Inc., 1362 St. Paul Avenue, Milwaukee 1, Wisconsin.



Featured by Cutler-Hammer refrigeration wholesalers and recommended by alert service dealers from coast to coast.

## ROTARY SEAL

**Replacement Units**

- ✓ Easy to install
- ✓ Simple in Construction
- ✓ Efficient in Operation
- ✓ Economical

AT ALL Seal with THE mechanical seals for ROTARY SEAL COMPANY rotating shafts LEADING JOBBERS Certainty!"

AVAILABLE FOR MORE THAN 900 COMPRESSOR MODELS

For Commercial, Semi-Commercial, Air Conditioning, and Home Refrigerator Compressors . . . Units are available for all Standard makes . . .

ROTARY SEAL Replacement Units are the original precision-built replacements . . . Proven for satisfactory performance over 20 years of successful use.

2020 NORTH LARRABEE STREET CHICAGO 14, ILLINOIS, U.S.A.  
CANADIAN AGENT: 2025 ADDINGTON AVENUE MONTREAL 28, QUEBEC, CANADA

## SILVER BRAZING ALLOYS

# SIL-BOND SIL-EX

IN STOCK AT YOUR WELDING SUPPLY JOBBERS

UNITED WIRE & SUPPLY CORP.  
PROVIDENCE 7, RHODE ISLAND

# Refrigeration Problems and their Solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

## Questions and Answers on Mixing 'Freon-12' and CO<sub>2</sub>

### QUESTION

I have followed your articles for a number of years and have gained a good deal of information from them; however, there is one subject that I often deal with that I have never fully understood. It concerns the behavior of a mixture of gases, such as is found when testing a system for leaks by admitting refrigerant gas, then building up pressure with carbon dioxide or nitrogen, or even in some cases, air.

Dalton's Law states that in a mixture of gases, the total pressure is the sum of the partial pressures. It also states that in a mixture of gases, each gas behaves according

to its own characteristics.

It seems to me that in adding CO<sub>2</sub> to a refrigerant to build up the pressure for leak testing, then a pressure can be reached, where the refrigerant will condense, with drops of liquid refrigerant scattered throughout the system, and as a result leave the CO<sub>2</sub> pressure only, which is not detectable with a halide torch. I doubt if all of the refrigerant would condense, but of this I am not sure.

Also, would not the difference in densities of the gases cause the heavier one to settle to the lower parts of the system, so that the halide torch would not be effective in finding leaks in the upper parts of the system?

### ANSWER

The subject of the behavior of gases is one that is sometimes rather confusing, especially to those of us who deal a great deal with gases in their saturated condition, such as in a condensing unit when the refrigerant is boiling in the evaporator, or condensing in the condenser.

Your letter refers to Dalton's Law, which deals with mixtures of two or more gases. You are quite correct that Dalton's Law provides that in a mixture of two gases, the total pressure is the sum of the partial pressures of each of the two gases. Dalton's Law also provides that the volume of each of the two component gases is the same, for they both completely fill the same space at the same time. Furthermore, Dalton's Law provides that each of the component gases obeys its own pressure-temperature relationship independently of the other gas or gases in the same cylinder.

For example, let us take an empty gas cylinder and pump a "perfect" vacuum on it—at least we pump a 29½-in. or better vacuum and we will ignore the remainder.

To this empty cylinder, we connect a "Freon-12" cylinder having some liquid "Freon-12" in it, and we keep the "Freon-12" cylinder upright so that only "Freon-12" vapor gets over into the empty cylinder. Let us assume that the empty cylinder, the "Freon-12" cylinder, and the room air surrounding them are at 74° F.

Since there is liquid "Freon-12" in the cylinder, the "Freon-12" vapor is saturated, and according to the saturated "Freon-12" tables, the "Freon-12" pressure is 75.5 p.s.i.g. or (75.5 + 14.7) 90.2 p.s.i.a.

Therefore, we have saturated "Freon-12" vapor in the previously empty cylinder, at a pressure of 75.5 p.s.i.g. or 90.2 p.s.i.a. With this

condition, we shut off both valves, take the "Freon-12" cylinder away and connect a carbon dioxide (CO<sub>2</sub>) cylinder in place of the "Freon-12" cylinder. The CO<sub>2</sub> cylinder has a pressure of almost 900 p.s.i.g.

We crack the valves and let some of the CO<sub>2</sub> pass over into the cylinder with the "Freon-12" gas, enough to build the pressure up from 75.5 p.s.i.g. to 300 p.s.i.g. Then we close both valves.

### SATURATED 'FREON-12' AND SUPERHEATED CO<sub>2</sub>

Now we have a cylinder with both "Freon-12" and CO<sub>2</sub> gas in it. The gauge reads 300 p.s.i.g., so the absolute pressure is (300 + 14.7) or 314.7 p.s.i.a. This is the total pressure. Since Dalton's Law says that the total pressure is the sum of the partial pressures, the partial pressure of the CO<sub>2</sub> only must be this total pressure less the pressure of the "Freon-12," (314.7 - 90.2) or 224.5 p.s.i.a., which is 209.8 p.s.i.g.

(When we put the CO<sub>2</sub> in with the "Freon-12," we had to do it very slowly, for when we reduced the CO<sub>2</sub> pressure from 900 p.s.i.g. to a little over 200 p.s.i.g., there was quite an expansion, which would cool the CO<sub>2</sub> gas. We have assumed that the CO<sub>2</sub> was let in so slowly that the mixture of "Freon-12" and CO<sub>2</sub> gas in the cylinder stayed at 74° F.)

Dalton's Law says that the "Freon-12" gas and the CO<sub>2</sub> gas each completely fill the cylinder.

They are mixed with one another. The molecules of a gas are so far apart that there is plenty of room between them for the molecules of the other gas, with plenty of room besides. So both the "Freon-12" gas and the CO<sub>2</sub> gas can both of them completely fill the cylinder at the same time.

### TOTAL AND PARTIAL PRESSURES REDUCED

Suppose that we now cool this cylinder 20°, that is down to 54° F. The "Freon-12" vapor was saturated, so some of it condenses to a liquid and runs down to the bottom of the cylinder. The saturation pressure of "Freon-12" at 54° is 50.9 p.s.i.g. or 68.6 p.s.i.a.

The CO<sub>2</sub> gas is not saturated, for we only drew a pressure of about 200 p.s.i. from the CO<sub>2</sub> gas, whose saturation pressure was about 900 p.s.i.a. So the partial pressure of the CO<sub>2</sub> at 54° would not be the saturation pressure of CO<sub>2</sub> at 54°.

However, the pressure of the CO<sub>2</sub> does drop some when it cools 20° from 74° to 54° F. According to Charles' Law, it would drop from 224.5 p.s.i.a. to 216.1 p.s.i.a. Charles' Law is:

$$\frac{P_1}{P_2} = \frac{T_1}{T_2}$$

$$\frac{224.5}{P_2} = \frac{74 + 460}{54 + 460}$$

$$P_2 = 216.1 \text{ p.s.i.a.}$$

So at 54° the total pressure will be the partial pressure of the "Freon-12," 68.6 p.s.i.a., plus the partial pressure of the CO<sub>2</sub>, 216.1 p.s.i.a., or 284.7 p.s.i.a., instead of the 314.7 p.s.i.a. at 74°. The gauge

pressure would be (284.7 - 14.7) or 270 p.s.i.g., so the gauge on the cylinder would read 270 lbs., whereas at 74° it read 300 lbs.

### ADDING CO<sub>2</sub> TO THE MIXTURE

Suppose that we now let the cylinder warm back up to 74°. The partial pressure of "Freon-12" rises to 224.5 p.s.i.a. and of the CO<sub>2</sub>, to 90.2 p.s.i.a., so the total pressure is again 314.7 p.s.i.a. or 300 p.s.i.g.

Now let us crack the valves and slowly let in a little more CO<sub>2</sub> pressure, enough to build the total pressure up to 400 p.s.i.g., or 414.7 p.s.i.a. Then we close the valves.

We have added 100 p.s.i.a. to the CO<sub>2</sub> pressure, so that its partial pressure is now 324.5, but we have not changed the partial pressure of the "Freon-12." It is still 90.2 p.s.i.a. Warming or cooling the mixture of gases will change the partial pressure of the "Freon-12," but adding or taking away CO<sub>2</sub> pressure does not change the "Freon-12" if there is no temperature change.

### CO<sub>2</sub> AND AMMONIA

#### QUESTION

It has been rumored among many of the men in this area that when CO<sub>2</sub> is mixed with NH<sub>3</sub>, it causes a chemical reaction, making a gummy substance and causing rapid carbonizing in the compressor head. Could you tell me if this is true, or is there no basis for this rumor?

#### ANSWER

It is not considered good practice to mix CO<sub>2</sub> with ammonia, as they combine chemically, particularly in the presence of some moisture, which is always unavoidable, especially in large systems, to form some solid compounds which include ammonium, carbonate, and ammonium bicarbonate. If there is much of this solid formation, it can, of course, result in sludges and in causing valve, seal, and bearing troubles.

It is quite common practice in testing ammonia equipment to use CO<sub>2</sub>, but the ammonia is usually partially or entirely evacuated before the CO<sub>2</sub> is charged in and then the system is tested with soap water. It is doubtful if there would be too much danger of any appreciable formation of solids if the amount of ammonia gas left in the coils was slight.

Then, of course, it is to be expected that after the system is tested, the CO<sub>2</sub> will be entirely pumped out and a good vacuum drawn on the system before the ammonia is let back into the coils.

### Schnacke Equipment Used In S. C. Testing Laboratory

CLEMSON, S. C.—A recent installation using Schnacke refrigeration equipment was completed at the U. S. Department of Agriculture Production and Marketing division laboratory located at Clemson college here, by Engineered Temperature, Inc. of Atlanta, Ga.

Schnacke Model AFC15 is used in connection with a textile industrial process system located in the testing laboratory.

### Gant To Represent Arcold

DALLAS—J. C. Gant has been appointed wholesale representative in Texas and Oklahoma for the Arcold Co., Inc., it has been announced by F. C. Fallon, president.

The newly-formed Arcold Co. was organized to distribute nationally the products of the Nolin Brothers Mfg. Co. of Montgomery, Ala.

### Roberts Heads Indianapolis Territory for Builidice Co.

CHICAGO—The Builidice Co. here has announced the appointment of Marvin Roberts as manager in the Indianapolis territory. Roberts is headquartered at 404 S. Collier St., Indianapolis, Ind., telephone Belmont 4790.

**REMCO**  
"loss eliminators"

**Pull-up Profits for You!**

At Leading Wholesalers

**REMCO INCORPORATED**  
ZELIENOPLE, PA.

## MR. DISTRIBUTOR DEALER

Farm and home freezers, commercial display cabinets, dairy cases, bottle coolers, walk-in coolers

Profit by selling the American "Aristocrat" line

### AMERICAN REFRIGERATION CORPORATION

1025 E. Excelsior Avenue  
Hopkins, Minnesota

greater resiliency

Jarrow...  
Refrigerator Door Gaskets

Always Demand These Quality Gaskets

### JARROW PRODUCTS

420 N. LA SALLE ST., CHICAGO 10, ILLINOIS

trade in refrigerators profitably with the original

**"BLUE BOOK"**

order your copy today

OFF THE PRESS NOW  
**\$5.00 POSTPAID**

NATIONAL REFRIGERATOR MARKET REPORT, INC.  
DEPT. AC-I, P.O. BOX 61  
LOS ANGELES 25, CALIF.

### WE WILL BUY!

#### SURPLUS REFRIGERATION UNITS BELT-DRIVEN OR HERMETICS

1/6 H.P. to 10 H.P.

ANY QUANTITIES • MUST BE NEW

Write, Phone Or Call For IMMEDIATE ACTION

### TRACO Industrial Corp.

455 W. 19 St., N. Y. 19, WAtkins 4-4302

(Send for Traco's complete list of sensational bargains)

**nolin** VEGETABLE CASE  
meets your customer's demand

Perfect for small stores or markets.  
beautifully finished  
immediate delivery

Ranco  
REPLACEMENT  
REFERENCE  
No. 1244

**Ranco Inc.**  
COLUMBUS 1, OHIO  
WORLD'S LARGEST MANUFACTURERS OF REFRIGERATION CONTROLS

YOU CAN'T GET ALONG WITHOUT THIS NEW PARTS CATALOG

**HARRY ALTER'S SPRING-AND-SUMMER 1951 DEPENDABOOK No. 154**

Over 9,000 Refrigeration PARTS and Supplies

To successfully conduct a business in these days of scarcities, you really need DEPENDABOOK No. 154... If it's available you'll find it listed in this latest edition.

"Service doesn't falter when it comes from Harry Alter"

**THE HARRY ALTER CO.** WHOLESALE ONLY  
1728 South Michigan Avenue  
Chicago 16, Ill.  
134 LaFayette Street  
New York 13, N.Y.

*"But there isn't any shortage, Mr. Blitz—I still have Ranco Controls!"*

A cartoon illustration shows a man in overalls and a cap working on a piece of machinery, while another man stands nearby holding a clipboard. A third man is seen in the background. The scene is set in what appears to be a workshop or factory.

*Stumped on what control fits what? This book—at your Ranco wholesaler—is will answer your questions in a jiffy.*

**Ranco Inc.**  
COLUMBUS 1, OHIO  
WORLD'S LARGEST MANUFACTURERS OF REFRIGERATION CONTROLS

## Detroit Lubricator-- Servel Electric--

*(Concluded from Page 1, Column 2)*  
charge of the western regional office in Chicago.

F. G. Coggin, formerly manager, Refrigeration Controls division, becomes assistant general manager of sales.

F. Y. Carter, formerly chief refrigeration sales engineer, becomes manager of the Refrigeration Controls division.

W. H. Hohmeyer, formerly manager of the Heating Controls division, becomes manager of sales research and promotion.

H. L. Walker, formerly assistant manager of the heating Controls division, becomes division manager.

J. Ledyard becomes manager, Industrial Products division.

R. C. McKee, Jr. becomes manager of the west central regional office with headquarters in Chicago.

J. Kreissl is the manager of the east central regional office with headquarters in Pittsburgh.

### Bush Mfg. Votes Dividend

WEST HARTFORD, Conn.—At a meeting of the board of directors of The Bush Mfg. Co., it was voted to declare a dividend of 28½ cents per share on the 4½% cumulative convertible prior preferred stock, payable July 1, 1951.

*(Concluded from Page 1, Column 3)*  
June 26 issue of the New York Times.

The advertisement was dominated by a drawing of a serviceman plugging in the Servel refrigerator. The latter was pictured with doors open to show interior features.

Copy read: "Did you hear? Now the famous silent Servel also runs on electricity! Just a simple electric heating element makes it run! Just plugs in, runs on AC or DC! Servel—Gas or Electric—the only refrigerator with a different freezing system!"

Copy emphasized that there are no moving parts and operation is absolutely silent. Also stressed was the claim, "The only electric refrigerator with 10-year warranty on its freezing system."

Copy explained that the refrigerator operates as "simply as your percolator." It went on, "A small heating element activates the freezing cycle—eliminating all machinery, valves, pumps, pistons, and motor. Not a single wearing part."

Readers were advised to see the new electric Servel at their local dealer's store.

The Servel electric line includes counterparts for each of the eight models in the gas line. They range in capacity from a 6-cu. ft. apartment house model to a two-door unit with 11½ cu. ft. of space and a separate freezing compartment.

## Instantaneous Draught Beer Cooler refrigerated faucets!

**Speed-Freeze**  
draft and bottle beverage coolers

IDEAL COOLER CORPORATION  
2953 EASTON AVE., ST. LOUIS 6, MO.

## Westinghouse--

*(Concluded from Page 1, Column 3)*

"The price rollbacks which had been threatened by the government would have cost Westinghouse \$16 million a year in addition to the \$20 million which the pay increase will cost," he stated. "Should Congress in the future fix ceiling prices which include rollbacks to earlier levels, we still may be required to appeal to the government for price relief."

He said that price stabilization authorities had assured Westinghouse of its right to petition should increased labor costs place the company "at a competitive financial disadvantage or impair the company's ability to earn an essential profit."

Coming! The Great Once-in-a-Lifetime—

## SILVER ANNIVERSARY ISSUE

To be published September 17!



### Important Events—

Maybe it isn't important that in 1926 Gene Tunney won the World's Heavyweight Championship from Jack Dempsey . . . that roundsteak sold in the stores for 35 cents a pound . . . but it is important that F. M. Cockrell founded The Newspaper of the Industry in Detroit that year.

For during the past 25 years AC & RN has rendered distinguished service to a great and growing industry.

On September 17, this year, AC & RN becomes 25 years of age . . . and will celebrate its 25th birthday by publishing The SILVER ANNIVERSARY Issue . . . tracing the history of the more important developments within the industry during the past quarter century.

Advertisers are offered a very rare opportunity to tell the world about their own accomplishments in this historical issue.

Advertising closes September 7.

## Air Conditioning & Refrigeration News

The Newspaper of the Industry

## Government Contracts

### PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing office under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid set is made.

### DEPARTMENT OF DEFENSE

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. **Ordnance District Offices do not have information on any other purchases.**

Description	Quantity	Reference No.	App. Bid Date
Officer In Charge, Navy Purchasing Office, Washington, D. C.	8	4815-S-B	25 Jul 51
Cooling coil - type A - size 44DF	6	4815-S-B	25 Jul 51
Cooling coil - type A - size 45DF	6	4815-S-B	25 Jul 51
Cooling coil - type A - size 46DF	8	4815-S-B	25 Jul 51
Unit cooler - type B - size 41UF - with 115-V-AC motor and controller	2	4815-S-B	25 Jul 51
Basic motor and controller spares and air filters for item 4	2	4815-S-B	25 Jul 51
Unit cooler - type B - size 43UF - with 115-V-AC motor and controller	2	4815-S-B	25 Jul 51
Basic motor and controller spares and air filters for item 6	2	4815-S-B	25 Jul 51
Unit cooler - type B - size 45UF - with 115-V-AC motor and controller	2	4815-S-B	25 Jul 51
Basic motor and controller spares and air filters for item 8	2	4815-S-B	25 Jul 51
Navy Purchasing Office, 111 East 16th Street, New York, New York			
Oil - hydraulic gear	5000 gal	9133	13 Jul 51
Fans - electric	2550	9114	12 Jul 51

Commanding Officer, Naval Supply Depot, Mechanicsburg, Pa.  
ATTN: Code 788B  
Misc - valve repair parts mfgd 239 72-20520 11 Jun 51  
by Edwards Valve Inc.  
Misc - Blower repair parts 190 72-20962 12 Jul 51  
mfgd by General Electric

### GENERAL SERVICES ADMINISTRATION

Description	Quantity	Invitation No.	Opening Date
General Services Administration, Regional Information Officer, Room 528, U. S. Court House, Chicago 4, Illinois		C&R 130	23 Jul 51
Champaign, Illinois U.S.P.O.			ventilation etc.

### CONTRACTS AWARDED AS OF JUNE 20, 1951

Chicago Quartermaster Depot, U. S. Army, 1819 West Pershing Road, Chicago, Illinois  
Refrigerator, mech. cooled.—Koch Refrigerators Inc., 600 N. 14th Street, No. Kansas City 16, Missouri.  
Cabinet, frozen food.—Tyler Fixture Corp., 1401 Lake Street, Niles, Michigan  
Colored refrigerator, water, bakery, type I.—Filtrine Mfg. Co., 68 Lexington Ave., Brooklyn, New York  
Yards and Docks Supply Office, U. S. Naval Construction Battalion Center, Port Hueneme, Calif.  
Freezers, ice cream, 6 qt. capacity.—J. H. Batteiger Co., 440 Seaton Street, Los Angeles 13, Calif.  
Headquarters Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio  
Copper tubing, cl-23A.—Lewin Mathen Co., St. Louis, Missouri  
Air conditioning equipment, cl-34B.—Carrier Corp., New York, New York  
General Services Administration, Regional Information Office, Region 3, 7th & D' st. S.W., Washington 25, D. C.  
Fans, 16-inch, quan. 2000; dollar value 46,020.00.—Hunter Fan & Ventilating Co., 43 Eareen st., N. Y.  
Fans, 30-inch, adjustable, high pedestal, quan. 200; dollar value 14,894.00.—The Emerson Electric mfg. co., 8100 Florissant ave., St. Louis 21, Mo.

### CONTRACTS AWARDED AS OF JUNE 27, 1951

U. S. Navy Purchasing Office, 1206 South Santee Street, Los Angeles 15, California  
Refrigerators.—Baker Bros. Corp., 7th Street, Flower and Figueron, Los Angeles 14, Calif.  
Department of The Navy, Bureau Of Ships, Washington, 25, D. C.  
Condensing unit equipment for air conditioning plant.—York Corp., York, Pa.  
Navy Purchasing Office, New York, New York  
Tubing, copper, nickel alloy.—The American Brass Co. Inc., Waterbury 89, Conn.  
Headquartermaster, U. S. Marine Corps, The Quartermaster General, Washington 25, D. C.  
Cabinets.—Ice Cooling Appliance Corp., 610 West Wall Street, Morrison, Illinois  
Ice cream plant, portable.—Emery Thompson Machine and Supply Co., 1349 Inwood Avenue, New York 52, New York  
Department of the Navy, Bureau of Ships, Washington 25, D. C.  
Condensing unit equipment for air conditioning plant.—Carrier Corp., Syracuse, New York

## Govt. Reopens Aluminum Forgings Plant, Sets Up Test Lab, Stations Jets

WASHINGTON, D. C.—The government-owned aluminum forgings plant at Erie, Pa., will be reactivated for operation under a lease contract by the Willys-Overland Co., it was announced by the Office of the Secretary of Defense.

The OSD also announced that a jet fighter squadron will be stationed at the Youngstown Municipal Airport, Youngstown, Ohio, and that a joint parachute test facility will be established in September at the Naval Auxiliary Air Station, El Centro, Calif.

The Erie plant has a capacity of 15 million lbs. of finished aluminum forgings a year. It is fully equipped and is expected to be in production within 60 days.

About \$3,000,000 has been allocated for initial construction of extended runways, barracks, sewage, and general facilities at the Youngstown airport for the fighter squadron.

Purpose of the joint parachute test facility at El Centro is to eliminate duplication of Air Force and Navy test personnel, and equipment.

### Non-Signer Clause of Michigan Fair Trade Law Not Enforceable

LANSING, Mich.—Michigan Attorney General Frank G. Millard has ruled that the non-signer clause of the Michigan fair trade act is no longer enforceable. His ruling is the result of the U. S. Supreme Court's recent decision that fair trade resale minimum price contracts involving products in interstate trade cannot be made binding on retailers not signing such contracts.

Millard further ruled, however, that the price maintenance features of the state fair trade act are still binding on dealers who have signed such contracts with manufacturers or distributors, and on commodities manufactured in Michigan.

### NPA Names Anoff, Finneburgh To Food, Beverage Committee

CHICAGO—I. S. Anoff, president of the Albert Pick Co., Inc., and M. L. Finneburgh, general sales manager, Soda Fountain division, The Liquid Carbonic Corp., were recently appointed by the National Production Authority as members of the Commercial Food and Beverage Service Equipment Industry Advisory Committee to N.P.A.

## CPR 7 Amendment--

*(Concluded from Page 1, Column 5)*  
vides a method of determining ceiling prices for sellers who cannot price under other sections of the regulation," the agency said.

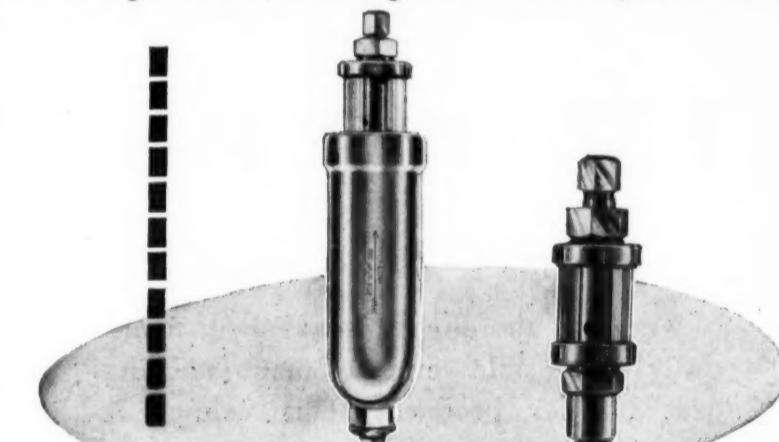
"It has come to the attention of the OPS that certain classes of retailers which determine ceiling prices pursuant to section 39 normally operate on makeups lower than those set forth in Appendix E; hence . . . it is necessary to amend section 39 so

that the OPS may establish for such sellers markups in line with the markups for sellers of same class."

The regulation already contains a provision under which retailers may apply for authority to sell at higher than Appendix E markups.

In another change, Appendices C, D, E, and F were expanded to include Categories 211A, 510, 1009A, 1010A, and 1011A which were included in Appendix B of the original regulation.

## PROMPT DIAGNOSIS—NO LEAKS... every service job satisfactory



### Makes Trouble VISIBLE

You don't guess — you KNOW — what is wrong, instantly, when you use Cee-Kleer, the only combination Sight Gauge-Drier on the market.

There's no searching in the dark because Cee-Kleer gives full 360° vision for fastest diagnosis of all operating troubles.

Cee-Kleer Driers trap sludge, wax, moisture and fine foreign particles. They are easy to clean and refillable — and there's not a漏er in a carload of them. Use this Cee-Kleer combination sight-drier on your next service job. Believe me, you'll continue using them to make every service job satisfactory.

**Cee-Kleer**  
PRODUCTS, INC.  
947 W. Sixth Street  
Cincinnati 3, Ohio

Ask your Distributor for Cee-Kleer

If he cannot supply you, just use the handy coupon and we'll be glad to send you any size you need until your distributor's stock arrives.

Please ship..... Cee-Kleer Sight-Driers; size.....

My Distributor is.....

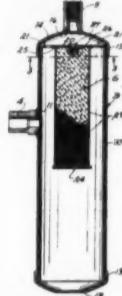
Name.....

Address.....

## PATENTS

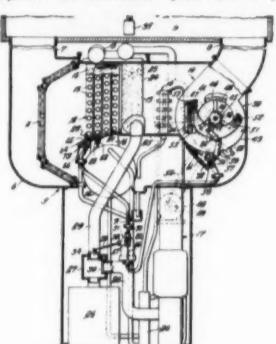
Week of April 10

**2,548,335. REFRIGERATION ACCUMULATOR AND DEHYDRATOR.** Roy O. Balogh, Cleveland, Ohio, assignor to The Weatherhead Co., Cleveland, Ohio, a corporation of Ohio. Application April 24, 1947, Serial No. 743,509. 9 Claims. (Cl. 183—4.4.)



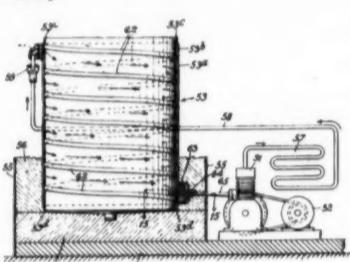
1. A dehydrator unit comprising a casing having an inlet and an outlet above said inlet, screen means for containing moisture absorbent material mounted in said casing, means to suspend said screen means in said casing, said screen means being spaced from said inlet and outlets to provide an unobstructed flow of gas through the unit, said inlet being above the lower portion of said casing by a substantial distance to provide a fluid trap.

**2,548,426. AIR CONDITIONING.** Walter M. Simpson, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Feb. 18, 1947, Serial No. 729,345. 11 Claims. (Cl. 257—9.)



1. In an air conditioner, a conditioning chamber, a fan for delivering air through the conditioning chamber to an enclosure to be conditioned, a heating system having a heating element in the conditioning chamber, a refrigeration system having a cooling element in the conditioning chamber, a controller for selecting either the heating system or the cooling system for operation, said fan having a casing with an air inlet opening in the side thereof, a movable element cooperating with the fan casing to partially cover the air inlet opening and reduce the capacity of the fan, and mechanism operated by the controller for actuating the movable element.

**2,548,441. REFRIGERATOR AND EVAPORATOR THEREFOR.** Willard L. Morrison, Lake Forest, Ill. Application May 26, 1945, Serial No. 596,047. 4 Claims. (Cl. 62—126.)



1. In an air conditioner, a conditioning chamber, a fan for delivering air through the conditioning chamber to an enclosure to be conditioned, a heating system for heating air in the conditioning chamber, a refrigeration system for cooling air in the conditioning chamber, a controller

## Air Conditioning, Commercial Refrigeration Shipments 1946-1950 From Figures Collected by the U.S. Bureau of the Census

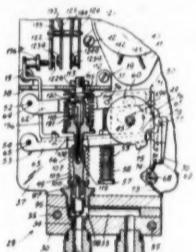
Table 1—Air Conditioning Equipment and Components and Accessories for Air Conditioning and Commercial Refrigeration Equipment: Quantity and Value of Shipments, by Class of Product, 1946-1950

Class of Product	(Value Figures in Thousands of Dollars)					
	1950 No.	Value	1949 No.	Value	1948 No.	Value
Condensing units	858,367	\$74,483	610,341	\$53,534	841,609	\$73,443
Ammonia refrigerants	245	352	254	346	1,129	1,799
Refrigerants except ammonia	858,122	74,131	610,087	53,188	840,480	71,644
Air cooled	807,693	57,685	570,280	40,127	797,098	56,829
Water cooled	50,429	16,446	39,807	13,061	43,382	14,815
Condensing units, not reported by type						
Compressors and compressor units	954,368	46,977	604,431	29,929	459,390	33,493
Ammonia refrigerants	2,652	6,756	2,240	5,620	4,156	9,209
Refrigerants except ammonia	951,716	40,221	602,191	24,309	455,234	24,284
Compressors and compressor units, not reported by type						
Centrifugal refrigeration systems	382	12,249	285	8,189	361	10,351
Heat exchanger equipment		62,008		40,925		48,552
Evaporative condensers	7,818	8,869	4,798	5,850	5,560	7,505
Unit coolers	152,996	26,223	95,850	15,707	102,825	17,874
Air conditioning	49,400	13,306	30,044	7,997	21,633	8,276
Refrigeration	103,596	12,917	65,806	7,710	81,192	9,598
Other heat exchanger equipment		26,916		19,368		23,173
Heat exchanger equipment, not reported by type						
Self-contained air conditioning units	249,854	84,842	123,709	50,584	111,620	49,008
Room type	193,807	33,958	89,320	17,940	73,638	15,503
Other than room type	56,047	50,884	34,389	32,644	37,982	33,505
Ice making machines	11,846	7,203	6,902	4,641	5,947	5,266

\*Revised. †Not available.

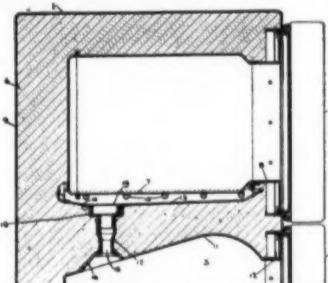
space, a refrigerant return duct extending from the bottom of said space, means for circulating a refrigerant through said ducts and space, and means for distributing the refrigerant substantially uniformly throughout said space while maintaining a generally downward movement of the refrigerant throughout said space, whereby substantially all of the outer face of the inner cylinder is subjected to the evaporating refrigerant, said inner cylinder constituting substantially throughout its entire area, a primary refrigerating surface.

**2,548,324. DEFROST CONTROL FOR REFRIGERATION SYSTEMS.** Carl A. Smith, Ferguson, Mo., assignor to Missouri Automatic Control Corp., St. Louis, Mo., a corporation of Missouri. Application Jan. 19, 1950, Serial No. 135,381. 10 Claims. (Cl. 161—7.)



1. In an automatic defrost control device for use in a refrigeration system, a valve, a first spring for biasing said valve in a closed position, a second stronger spring capable when stressed and operative when released from a stressed position to open said valve with a snap action against said first spring, a synchronous timer motor, means driven by said motor for stressing said second spring over period of time and for effecting its release at a predetermined time, a member movable to a first position in which said second spring is rendered operative when released from its stressed position to open said valve and to hold it open, and movable oppositely to a second position in which said second spring is rendered inoperative to hold said valve open, whereby said valve may again be closed with a snap action by said first spring, spring means for biasing said member in one position, and means driven by said motor for moving said member to its other position.

**2,548,608. FLOW-CONTROLLING DEVICE FOR REFRIGERATORS.** Alfred G. Janos, Erie, Pa., assignor to General Electric Co., a corporation of New York. Application Dec. 18, 1946, Serial No. 716,933. 13 Claims. (Cl. 62—3.)



1. A cabinet for refrigerators and the like comprising means defining a compartment maintained at a low temperature, means defining a second compartment maintained at a higher temperature, a low temperature zone adjacent said low temperature compartment, means providing a passage for communication between said low temperature zone and said higher temperature compartment, and a freezeable element positioned within said passage, said element having the characteristic of changing in size on freezing to control communication through said passage.

(To Be Continued)

### JUST ASK US

For "easy-to-get" product information... use coupon on "What's New" page.

Use Key No. for fastest service.

Table 2—Air Conditioning Equipment and Components and Accessories for Air Conditioning and Commercial Refrigeration Equipment (Except Compressors and Compressor Units): Quantity and Value of Shipments, 1949 and 1950

Product	(Value Figures in Thousands of Dollars)	
	1950 Shipments No.	1949 Shipments No.
Condensing Units, Total	858,367	\$74,483
Refrigerants except ammonia, total	858,122	74,131
Air cooled, total	807,693	57,685
Open type, total	203,837	23,939
1/2 hp. and under (except units for household refrigerators)	12,085	565
1/4 hp.	30,935	1,859
1/3 hp.	46,140	3,617
1/2 hp.	42,742	4,297
3/4 hp.	30,114	4,282
1 hp.	20,074	3,580
1 1/2 hp.	8,141	1,767
2 hp.	8,352	2,141
3 and 5 hp.	5,254	1,831
Hermetic type, total	603,856	33,746
1/2 hp. and under (except units for household refrigerators)	250,085	10,875
1/4 hp.	160,878	8,868
1/3 hp.	129,159	8,159
1/2 hp. and over	63,734	5,844
Water cooled, total	50,429	16,446
By type		
Open (except units for household refrigerators)	46,997	15,697
Hermetic (except units for household refrigerators)	3,432	749
By horsepower		
1/2 hp. and under (except units for household refrigerators)	1,107	115
1/4 hp.	6,028	763
3/4 hp.	7,648	1,164
1 hp.	7,581	1,369
1 1/2 hp.	7,711	1,712
2 hp.	6,632	1,801
3 hp.	5,670	2,067
5 hp.	3,384	1,550
7 1/2 hp.	1,361	950
10 hp.	1,027	920
15 hp.	844	966
20 hp.	337	531
25 hp.	401	674
30 hp.	212	318
40 hp.	203	468
50 hp.	107	331
60 hp.	67	230
75 hp.		41
Over 75 hp.	109	430
Ammonia refrigerants		
Reciprocating water cooled, total	245	352
5 hp. and under	76	61
7 1/2 hp.	19	27
10 hp.	53	74
15 hp.	44	77
20 hp. and over	53	113
Centrifugal Refrigeration Systems (Water and Brine Chilling), Total	382	12,249
200 hp. and under	89	1,667
201 to 300 hp.	94	2,484
301 to 400 hp.	65	1,853
401 to 500 hp.	35	1,332
501 hp. and over	99	4,913

(Concluded on next page)

## Subscribe Now

Receive the greatest trade paper in the industry—AIR CONDITIONING & REFRIGERATION NEWS. Published every week. Brings you latest news and vital information on household refrigeration, commercial refrigeration, air conditioning, home freezers; manufacturing, distributing, retailing, servicing, and contracting. Only \$5 per year, 52 issues.

Fill in coupon and mail today

**AIR CONDITIONING & REFRIGERATION NEWS**  
450 West Fort Street, Detroit 26, Michigan

Gentlemen: Send the NEWS for one year.

\$5 enclosed    Bill me    Bill the company

Name.....

Company.....

Street.....

City..... Zone..... State.....

7-9-51

Box 3757

Air Conditioning & Refrigeration News

**Table 2 (Cont.)—Air Conditioning Equipment and Components and Accessories for Air Conditioning and Commercial Refrigeration Equipment (Except Compressors and Compressor Units): Quantity and Value of Shipments, 1949 and 1950**

(Value Figures In Thousands of Dollars)

Product	1950		1949	
	Shipments No.	Value	Shipments No.	Value
Heat Exchanger Equipment, Total		\$62,006		\$40,925
Evaporative condensers, total <sup>1</sup>	7,818	8,869	4,798	5,850
1 tons and under	1,387	407	805	248
1.1 to 7.5 tons	534	237	395	207
8.6 to 10 tons	888	496	429	274
0.1 to 15 tons	648	497	443	376
15.1 to 20 tons	594	558	336	320
0.1 to 30 tons	1,122	1,230	657	743
0.1 to 50 tons	1,470	2,256	971	1,604
0.1 to 100 tons	1,085	2,593	676	1,703
Over 100 tons	140	595	86	375
Unit coolers, total	152,996	26,223	95,850	15,707
Air conditioning (remote type) totals <sup>2</sup>	49,400	13,306	30,044	7,997
Under 1 ton	31,374	3,481	17,981	1,387
1 to 3 tons	7,089	1,133	5,005	893
3.1 to 5 tons	2,787	1,239	1,598	689
5.1 to 10 tons	2,466	1,427	1,720	962
10.1 to 25 tons	3,000	2,567	2,298	2,013
25.1 to 50 tons	2,374	2,892	1,245	1,651
Over 50 tons	310	567	197	402
Refrigeration, total <sup>3</sup>	103,596	12,917	65,806	7,710
Ceiling and wall mounted, total	100,301	8,857	63,369	5,069
1,000 B.t.u./hr. and under	1,074	98	648	37
1,001 to 2,000 B.t.u./hr.	18,788	665	12,311	446
2,001 to 4,000 B.t.u./hr.	19,719	866	12,839	474
4,001 to 6,000 B.t.u./hr.	11,826	911	8,361	493
6,001 to 8,000 B.t.u./hr.	13,779	1,238	6,734	544
8,001 to 12,000 B.t.u./hr.	11,542	1,310	7,810	756
12,001 to 18,000 B.t.u./hr.	15,199	1,950	8,812	1,074
Over 18,000 B.t.u./hr.	8,374	1,819	5,854	1,245
Floor mounted dry type, total	2,364	2,597	1,673	1,583
5 tons and under	741	490	467	293
5.1 to 7.5 tons	722	696	630	576
7.6 to 10 tons	293	258	249	259
10.1 to 15 tons	260	342	211	247
Over 15 tons	348	811	116	208
Floor mounted spray type, total	931	1,463	764	1,058
5 tons and under	226	165	141	56
5.1 to 7.5 tons	148	163	78	73
7.6 to 10 tons	283	629	274	520
10.1 to 15 tons	154	267	148	258
Over 15 tons	120	239	123	151
Other heat exchanger equipment, total	26,916	19,368		
Condensers, shell and tube and shell and coil			6,110	3,653
Shell and tube liquid coolers			862	571
Shell and coil liquid coolers			1,639	656
Fin coils, steam (other than forced-air units)			4,851	4,162
Fin coils, water (other than forced-air units)			4,316	3,694
Fin coils, direct expansion (except bunker gravity type refrigeration coils) and plate type evaporators			9,088	6,632
Self-contained air conditioning units <sup>4</sup> , total	249,854	84,842	123,769	50,584
Room type, total	193,807	33,958	89,320	17,940
Window sill type	182,938	30,619	78,454	14,425
6,000 B.t.u./hr. and under	47,168	6,805	17,749	3,242
6,001 B.t.u./hr. and over	135,770	23,814	60,705	11,183
Floor type	10,569	3,339	10,866	3,515
9,000 B.t.u./hr. and under	4,328	1,149	5,444	1,542
9,001 B.t.u./hr. and over	6,541	2,190	5,422	1,973
Other than room type, total	56,047	50,884	34,389	32,644
2 tons and under	4,097	1,978	825	460
3 tons	13,505	8,687	9,329	6,131
5 tons	28,373	24,512	19,157	17,157
7.5 tons	6,566	7,680	2,722	3,428
10 tons	1,754	3,088	1,157	2,192
15 tons	972	2,356	663	1,643
20 tons	445	1,253	223	593
Over 20 tons	335	1,330	313	1,040
Ice Making Machines, Total	11,846	7,203	6,902	4,641
Packaged (self-contained)	8,760	5,301	6,483	4,085
All others (not self-contained)	3,086	1,902	419	556

<sup>1</sup>Rating is the maximum horsepower for which a unit is catalogued corresponding to ASRE Groups I to IV conditions. <sup>2</sup>Rating is the maximum horsepower for which a unit is catalogued corresponding to ASRE Groups V to VIII conditions. <sup>3</sup>Rating is the maximum horsepower for which a unit is catalogued corresponding to ASRE Groups I to IV conditions. <sup>4</sup>Rating is the maximum horsepower for which a unit is catalogued corresponding to ASRE Groups V to VIII conditions.

**Table 3—Compressors and Compressor Units: Quantity And Value of Shipments, 1949 and 1950**

(Value Figures In Thousands of Dollars)

Product	1950		1949	
	No. of Shipments of Complete Units No.	Value	Bodies Manufactured	No. of Comps. Produced and Put into Other Equipment
Compressors and Compressor Units, Total	954,368	\$46,977	2,183,389	604,431 \$29,929
Refrigerants except ammonia, total <sup>1</sup>	951,716	40,221	2,180,480	602,191 24,309
1 tons and under				814,754
(except units for household refrigerators)	899,726	26,013	1,978,953	570,830 15,240
1 hp.	23,828	1,328	74,841	14,733 835
1 1/2 hp.	5,466	417	21,735	2,092 179
2 hp.	5,143	437	22,950	4,069 350
3 hp.	4,794	632	27,585	2,039 314
4 1/2 hp.	4,058	935	33,207	2,849 591
5 hp.	1,388	431	8,613	777 341
6 hp.	1,272	690	3,317	962 481
7 1/2 hp.	1,232	1,005	2,561	1,053 906
8 hp.	520	856	976	484 534
10 hp.	1,574	1,759	1,966	705 903
12 hp.	395	553		268 425
14 hp.	945	1,742		480 956
16 hp.	562	1,137		438 903
18 hp.	315	701	3,776	164 397
20 hp. and over	200	876		152 514
ammonia refrigerants, total <sup>2</sup>	2,652	6,756	2,909	96 440
7 1/2 hp. and under	179	82		120 60
10 hp.	103	76		98 61
12 hp.	179	151		129 123
15 hp.	244	313		236 257
18 hp.	307	408		240 309
20 hp.	223	374		278 433
22 hp.	287	578		231 482
24 hp.	226	514		214 479
26 hp.	239	686	2,909	140 419
30 hp.	175	566		143 467
35 hp.	137	573		126 424
40 hp.	165	766		119 532
45 hp. to 200 hp.	157	1,148		122 820
50 hp. to 300 hp.	16	223		20 279
50 hp. to 500 hp.				15 271
500 hp. and over	15	298		9 204

<sup>1</sup>Rating is the maximum horsepower for which a unit is catalogued corresponding to ASRE Groups I to IV conditions. <sup>2</sup>Rating is the maximum horsepower for which a unit is catalogued corresponding to ASRE Groups V to VIII conditions.

## Rodger, Mason, Gaughan Named Divisional Sales Managers by Crosley

CINCINNATI—Appointments of M. R. Rodger, T. H. Mason, and E. W. Gaughan as divisional sales managers of Crosley Div., Avco Mfg. Corp., have been announced by W. A. Blees, Avco vice president and



M. R. Rodger



T. H. Mason

Crosley general sales manager. Blees also announced the organization of the country into 21 zones as a part of a carefully planned, expanded factory field organization designed to bring closer coordination between Crosley wholesale personnel and distributors, dealers, and salesmen in the retail field.

Blees explained that under this arrangement each three or four distributors will have a Crosley zone manager to work exclusively with them in their distributorships and to maintain constant contact with them, spending the major part of their time in distributor cities.

In addition, each division will have a complete staff of specialists on advertising and sales promotion, finance, builder sales, home economics, and service to further aid the zone managers in working directly with the distributors, dealers, and retail organizations.

Rodger, for the last two years assistant general sales manager, will become manager of the central division.

Gaughan, who has

## '50 Commercial, Air Conditioning Sales--

(Concluded from Page 1, Column 3) units showed an increase to \$74 million from \$54 million, a gain of 39%. Compressors and compressor units, valued at \$30 million in 1949, increased 57% to \$47 million in 1950. Value of heat-exchanger equipment shipped in 1950 amounted to \$62 million, an increase of 52% over the preceding year. Shipments of self-contained air conditioning units amounted to \$85 million in 1950, a gain of 68% over 1949.

In unitary shipments condensing units shipped in 1950 totaled 858,367 (as reported to the Bureau of the Census) compared with 610,341 in 1949. Compressors and compressor units totaled 954,368 for 1950, compared to 604,431 for the previous year.

A big jump was shown in shipments of self-contained air conditioning units, 249,854 for 1950 as compared to 123,709 for 1949. Of the 1950 total, 193,807 were the room cooler type, and 56,047 were other than room type.

Reported shipments of evaporative condensers jumped to 7,818 in 1950 from 4,798 the year previous. Unit coolers, used in both air conditioning and refrigeration work, rose to 152,996 in 1950 from 95,950 the previous year.

Table 1 presents a historical summary of the quantity and value of shipments of air conditioning and commercial refrigeration equipment by class of product for the period 1946 through 1950.

## Fair Trade Bill--

(Concluded from Page 1, Column 4)

such contracts or agreements) prescribing minimum prices for the resale of a commodity which bears, or the label or container of which bears, the trademark, brand, or name of the producer or distributor of such commodity and which is in free and open competition with the commodities of the same general class produced or distributed by others, when contracts or agreements of that description are lawful as applied to intrastate transactions, under any statute, law, or public policy now or hereafter in effect in any State, territory, or the District of Columbia in which such resale is to be made, or to which the commodity is to be transported for such resale, and the making of such contracts or agreements shall not be an unfair method of competition under Section 5, as amended and supplemented, of the act entitled 'An Act to Create a Federal Commission, to Define Its Powers and Duties, and for Other Purposes' . . . ."

Announcing that the proposed amendment drafted by the group of lawyers has the full approval of its board of directors, the American Fair Trade Council urged all manufacturers and manufacturer groups interested in fair trade to support the proposal when and if it is introduced in Congress.

The council also asked for the support of retailer organizations "each working independently." This support, the council cautioned, should be "without soliciting or involving manufacturers in any manner that could be construed as coercive, collusive, or conspiratorial."

The council said it will conduct "intensive educational programs intended to alert every category of citizen having an interest in the perpetuation of fair trade." It was emphasized that the council's general program in "this great educational battle" will be pivoted "firmly on public interest."

## NEW PRODUCTS?

Turn to "What's New" Page for useful information on new products. Use Key No. for fastest service.

## Refrigeration Units WANTED

Desire to purchase  $\frac{1}{8}$  to 1-HP Sealed or Open type; standard brands; Complete condensing units; Also motors, controls, valves, etc. Give full details.

HARWOODE EXPORT CO.

31 E. 4 Street, New York 3, N. Y.

## May Ban Nickel Use In Some Commercial Cooking Equipment

WASHINGTON, D. C.—The National Production Authority may shortly amend Order M-14 to prohibit the use of nickel in the manufacture of many items of commercial food cooking equipment.

The agency so informed the Commercial Food and Beverage Equipment Manufacturers Association at a recent meeting.

NPA cited as a reason for further restrictions the critical shortage of nickel. It pointed out that requests for nickel allocations for the third quarter of 1951 totaled two and a half million pounds, "a quantity considerably greater than the present supply."

Another factor in the supply situation, NPA said, is the military demand for nickel in jet airplane engines. The agency warned the committee that this critical situation would prevail indefinitely.

The committee discussed various substitutes for nickel and advised the NPA that the industry must have Type 302 welding rods if it is to continue manufacturing commercial food equipment now used in defense plant cafeterias, hospitals, and schools. While this rod contains small amounts of nickel, the tonnage involved is negligible and its use would not hamper defense, the committee said.

NPA agreed to explore the possibility of exempting Type 302 rods from M-14.

## Hart Resigns--

(Concluded from Page 1, Column 2) H. M. Stewart, general sales manager. Later in that year he entered the sales field and traveled for the company in Indiana, Ohio, and Michigan.

During his tenure of 44 years he has filled every executive office except chairman of the board. Hart was elected president of the company in January, 1950.

During World War II he served as president of the Commercial Refrigerator Manufacturers Association two consecutive years. He was also a member of the War Production Board, serving on the Refrigerator Equipment Industry Advisory Committee.

Hart stated that he had remained with the company for one year past his normal retirement age.

## WATER BINGE

**N.Y. Officials Say, "Go Easy" As Consumption Nears Peak**

NEW YORK CITY—Use of water in New York City in a recent week soared to the highest peak since November, 1949, as the public ignored the pleas of officials to "go easy" in view of receding reservoir levels.

Daily average consumption in the week rose to 1,045,000,000 gals. During the critical months of the 1949-50 shortage, New Yorkers cut consumption to an average daily figure of about 900,000,000 gals. or less. In one recent 24-hour period, storage loss amounted to 824,000,000 gals.



Crystal ice . . . without sludge-forming rust, sediment, mineral residue . . . chlorine taste . . . "milkiness." Ends major source of service calls. Write for new literature.

**Filtrine**  
HIGH EFFICIENCY

"Water Coolers and Filters for 40 Years."  
**FILTRINE MANUFACTURING CO.**  
BROOKLYN 5, N. Y.

**Immediate Delivery  
GUARANTEED  
ON OUR  
AUTOMATIC ICE CUBER**

**Laudon**  
MINNEAPOLIS  
COMMERCIAL REFRIGERATION EQUIPMENT  
2524 27th Avenue South, Minneapolis, Minnesota

**More sold this year  
than ever before**

**BRUNNER**  
SINCE 1906

**AIR CONDITIONING**

# This is AIR CONDITIONER Weather and your last chance to CASH IN!

**These are your customers.** Restaurants, taverns, theatres, grocery and meat stores, clothing stores and practically all the other retail trades plus business offices and manufacturing plants.

**Contact them by personal call or telephone.** Let them know you are in position to make immediate installation of a famous BRUNNER Self Contained Air Conditioner in the correct capacity to fit the requirements of their place of business.

**It has been proven time and again.** An air conditioner will pay for itself in the extra business attracted and in a host of other ways. Illustrated Brunner literature will give you the entire story.

**Your last chance for extra summer season profits.** Only a limited supply of these BRUNNER Self Contained Air Conditioners is still available in all sizes for immediate delivery. No air conditioner has a finer reputation. They are priced right and good looking too. Make simple water and power connections and they go to work.

**BRUNNER MANUFACTURING COMPANY**  
UTICA 1, NEW YORK, U. S. A.

**★ Distributors** — If your floor stock has been depleted, phone us for replacements. We want to do everything possible to prevent disappointments this year through unfilled orders.

**★ Dealers and Service Shops** — Let the factory or your regular Brunner distributor know at once your anticipated needs so we can provide units in the desired sizes.

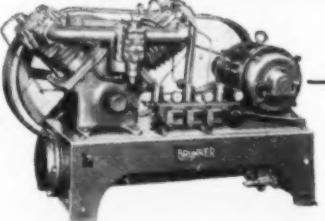


**BRUNNER**  
SINCE 1906

**AIR CONDITIONING**

- Self Contained 3 HP. to 10 HP.
- Remote Type 3 HP. to 75 HP.

Completely Brunner built . . . backed by a fine reputation forty-five years old.



**REFRIGERATION CONDENSING UNITS by**  
**AIR AND WATER COOLED MODELS** — a size  
and type for every purpose...  $\frac{1}{4}$  HP. TO 75 HP.

**BRUNNER**  
SINCE 1906